BRITISH RAINFALL,
1887.

LONDON :
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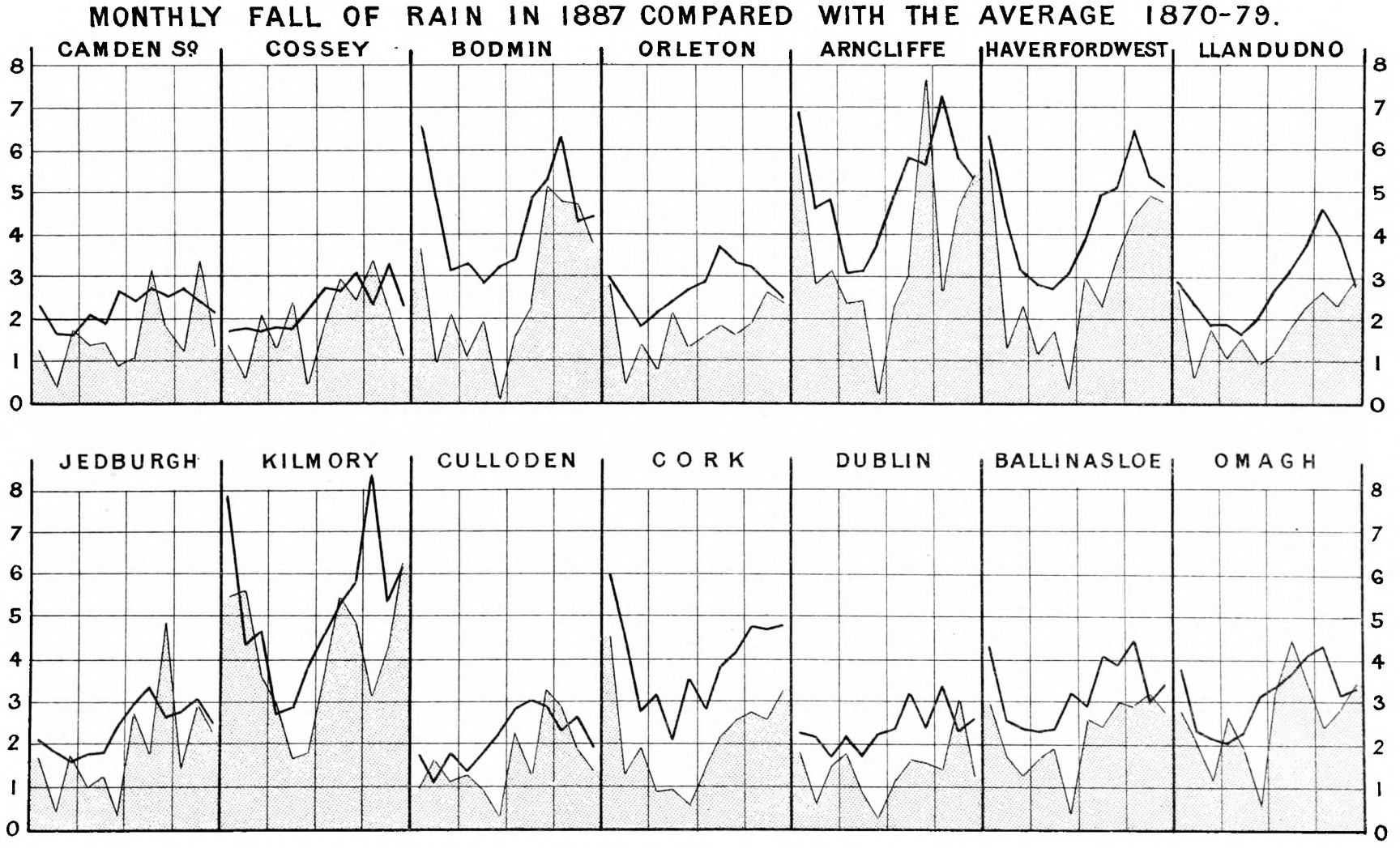
1888.


MONTHLY FALL OF RAIN IN 1887 COMPARED WITH THE AVERAGE 1870-79.
CAMDEN Sq
COSSEY
BODMIN
ORLETON
ARNCLIFFE
HAVERFORDWEST
LLANDUDNO
JEDBURGH
KILMORY
CULLODEN
CORK
DUBLIN
BALLINASLOE
OMAGH
0
1
2
3
4
5
6
7
8
—— =Average 1870-79. Shaded portion=Rainfall of 1887.

BRITISH RAINFALL, 1887.

ON

THE DISTRIBUTION OF RAIN

OVER THE

BRITISH ISLES,

DURING THE YEAR

1887,

AS OBSERVED AT MORE THAN 2500 STATIONS IN GREAT BRITAIN AND IRELAND,

WITH ARTICLES UPON VARIOUS BRANCHES OF RAINFALL WORK.

COMPILED BY

G. J. SYMONS, F.R.S.,

Secretary Royal Meteorological Society; Membre du Conseil Société Météorologique de France Member Scottish Meteorological Society; Korrespondirendes Mitgleid Deutsche Meteorologische Gesellschaft; Member of Council Royal Botanic Society; Registrar and Member of Council Sanitary Institute; Fellow Royal Colonial Institute; Membre correspondant étranger Soc. Royale de Médecine Publique de Belgique; Hon. Mem. Hertfordshire Nat. Hist. Soc., Essex Field Club; Northamptonshire Nat. Hist. Soc., Croydon Microscopic Soc., &c. &c. &c.

LONDON:

EDWARD STANFORD, CHARING CROSS, S.W

SIMPKIN, MARSHALL & Co., STATIONER'S HALL COURT.

1888.

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ERRATA IN BRITISH RAINFALL, 1886.

Page 30. Head line, 50° should be 53°.
,, [79]. Six lines from bottom Insert "No" before R.
,, [140]. Glenrath, March, for 3·27, read 4·08, and for 39·24 read 40·05.
,, [167]. Throcking, for 24·85 read 25·24.
,, [187]. Barrington House, for ?39·70 read 40·70.
,, [198]. Distington, for ?38·91 read 39·10.
,, [204]. Glenrath, *vide supra.*
,, [211]. Kingussie figures all correct, but for H.R.S. read School Ho.; and for Station Agent read Sergt. Fraser.

ERRATUM IN BRITISH RAINFALL, 1887.

Page [65]. Last line, for 206 read 2·06

BRITISH RAINFALL, 1887.

THREE months since I believed that I should have the pleasure of issuing this volume a month earlier than last year. That expectation has been shattered by the time required to deal properly with the droughts of 1887; a year which, as will be seen in subsequent pages, appears to have had no equal for widespread deficiency of rainfall since 1788; a sort of centenary, in fact, which would have delighted Mr. Doxat, had he lived to know of it.

This volume is somewhat largely devoted to the subject of droughts past, present, and I might add future, if the study of the past throws light thereupon; but I desire also to call attention to the important additions to our knowledge of the rainfall of the Lake district, which have resulted, and will continue to result, from a grant of £42 7s. made by the Royal Society from its own funds in 1886.

G. J. SYMONS.

62, CAMDEN SQUARE, N.W.,
July 6th, 1888.

REPORT.

Checking, Verifying and Entering Returns.—This work is always regarded as the first and all-important duty of myself and assistants. It is done as promptly and as thoroughly as possible, as upon it depends the whole value and efficiency of rainfall work. It would be neither useful nor easy to explain its nature, it varies so much. As far as mere arithmetic goes, I explained the nature of the work in *British Rainfall*, 1885, but I said nothing of the copying and entering and systematic classification of original records, and of all changes which occur from accidents, removals or deaths, which is absolutely indispensable, if the organization is to be kept, as it is, as near perfection as possible. I am glad to say that all this work is as forward as usual.

Rules for Observers.—I often think that the relative (not absolute, for it costs me a large sum,) cheapness of printing is an evil rather than a good. There is so much printed that few have time to read what they receive. Hence perhaps it is, that though I have constantly stated that I am delighted to send gratis and post free copies of the pamphlet, entitled *Arrangements for the systematic observation and record of the Rainfall of the British Isles*, I cannot induce all observers to ask for it, to read it, and to obey it.

Rain Gauges overflowing.—It is almost absurd that there should have been a case of this offence in 1887, but there has. I know that there are still some old gauges at work, which Rules XIV. and XVI. condemn. I do not ask their owners to sacrifice them, least of all to do so without attending to Rule II., but I do press upon their attention that if there is the slightest doubt as to the gauge holding all that falls, it must be emptied, the amount being of course carefully entered.

Days with Rain.—These figures are still improving; the chief faultiness arises from observers using gauges which do not easily indicate 0·01 in., though they may be practically correct for the total fall, and from others not going to examine their gauges except when they "think there has been some rain." I could pick out most of these observers, as their records are always deficient in entries of 0·01, 0·02 and 0·03; but the error does not affect the total fall, and

I do not regard the column of days with rain as sufficiently important to justify me in stopping the volume while correspondence goes on respecting such a minor point.

Inspection of Rainfall Stations.—Entirely stopped for want of funds.

Old Observations.—I am glad to say that, as regards the records of the 17th and 18th centuries, I hope to be able to report some progress next year. I applied to the Royal Society Committee, through whom the Government Grant of £4,000 is annually distributed, for £100 to be expended on this work. They allotted only half, but £50 is very acceptable, and with it I have retained an assistant, who will, in the first place, endeavour to complete my own collection of data up to 1800. When the data are all collected, I shall proceed immediately with their discussion. The importance of this work is sufficiently indicated by stating that if the drought from 1738 to 1762 indicated by the observations already collected is real, and recurs, not only will every town in England which receives its water supply from a gathering ground be put on short supply, but the canals will have to be closed and agricultural operations will have to be modified. I hope, therefore, that when the work is sufficiently advanced for the Committee to see its nature and importance, they will make such a further grant as may enable me to embody in a single monograph all the observations made in the British Isles during the seventeenth and eighteenth centuries and to give a summary of what they prove.

Self-recording Rain Gauges.—I am still without a self-recording rain gauge at £10. The low-priced one submitted by MM. Richard Frères failed, and at present I know of no other. Richard's twenty guinea ones (*British Rainfall*, 1884, p. 24), slightly improved since they were first brought out, work perfectly, and so does the one which I had many years since from Casella (*British Rainfall*, 1878, p. 42), but then they cannot be bought for £10, and we shall never have many of these instruments at work unless they can be bought for some such sum.

Finance.—This is the only branch of the work which it is unpleasant to me to press upon the attention of observers, and which, for want thereof does not progress satisfactorily. It has been suggested that in the general tables some indication should be given as to who subscribe and who do not. But I know too well that there are many who would help if they could, and many who help a little and regret

that they cannot help more. I should be indeed sorry to do anything which could in the faintest degree reflect upon them to whom, as to all observers, I feel deeply indebted for their trouble in taking and transmitting the observations. I am well aware that there are some observers who cannot pay even five shillings, but if I put their number at 300 I believe that that would be the outside, and yet there are upwards of 1,200 who do not contribute sixpence—that is to say, on the very lowest calculation, there are 900 persons who send in observations who could afford to contribute towards the cost of the work, and who do not. Doubtless, in most cases, they consider that the organization is worked by some rich society, or (as is still oftener believed) by Government, and therefore, not unreasonably, they consider that when they have made out and furnished their records, they have done all that can fairly be required. It is very difficult to know how to reach these persons, for circulars are now so numerous that the majority of them go into waste baskets after the merest glance—certainly without being read. The little band of subscribers, who have helped me from the first, stand by me still, and though, alas! I yearly lose some ten or twenty by death, there are generally enough new ones to take their places—but that is all. Of the larger sums of £1 and upwards we have but 365, out of a roll of observers of 2,094—not one in five. I am sure that this could be remedied if only the actual facts could be forced upon the attention of the observers, and of my countrymen generally, but this it is difficult for me to do.

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Shadwell, Rev. A. (2 years)	1	0	0
Shapley, Mr. C.	1	0	0
Sharp, R., Esq.	1	1	0
Sharples, G., Esq.	1	0	0
Shelford, W., Esq., C.E.	1	1	0
Shepherd, J. W., Esq.	1	0	0
Sherwin, Mrs.	1	1	0
Shiffner, Miss	1	0	0
Shuldham, Col.	1	0	0
Sidebottom, J., Esq.	5	5	0
Silver, S. W., Esq.	1	1	0
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Sing, Joshua, Esq.	1	0	0
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Smith, B. W., Esq.	1	1	0
,, Cecil, Esq.	1	10	0
,, G. E., Esq.	1	1	0
,, Harold, Esq.	2	2	0
,, Rt. Hon. W. H., M.P.	3	0	0
Smyth, J., jun., Esq., C.E.	1	10	0
Southall, H., Esq.	1	0	0
,, John T., Esq.	1	1	0
Sparkes, J., Esq.	1	1	0
Spence, R., Esq.	1	1	0
Spicer, Miss C.	1	1	0
Stanton, Miss R.	1	0	0
Stephens, H. C., Esq, M.P.	3	0	0
Stewart, Mark J., Esq., M.P.	1	1	0
,, Rev. W. E.	1	1	0
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,, J., Esq., C.E.	1	1	0
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,, J. D., Esq.	1	0	0
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„ J. M., Esq.	1	0	0
Wingfield, Rev. C. L.	1	0	0
Wood, J. G., Esq.	1	1	0
Woodd, Basil, Esq.	1	0	0
„ C. H. L., Esq.	1	1	0
Woodhouse, A. J., Esq.	2	0	0
Woollams, Mrs.	1	10	0
Wortham, H., Esq.	1	10	0
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„ Col. I.	1	5	6
Yool, H., Esq.	2	2	0
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WHAT IS A DROUGHT?

ALTHOUGH I again take the title under which I have previously discussed this subject, it is solely because no other so clearly defines the limits of this article. I am not about to reprint the paper which was read at the Manchester meeting of the British Association, and which appeared in the *Meteorological Magazine* for September last, but I may be compelled to make quotations, and I begin afresh, with perhaps rather clearer views upon the subject, and at any rate with the consciousness that no one has criticised, or suggested amendment in, my definitions. I regret this, but no one could have invited suggestions more warmly than I did, and if they have not come, it remains only to do as well as possible without them. It is never too late to improve, but the sooner the definitions are settled, the sooner will our record of droughts be as satisfactory as other portions of our work, and the less the time wasted if it should eventually appear that the present method can be improved upon.

One is bound to give special attention to this subject before proceeding to work up the records of 1887, because, without looking into them at all, we all know that 1887 was characterized by excessive drought. And therefore we must try to so tabulate the facts that in future years no one will be able to turn to this volume and say that "the details of the drought are old-fashioned and useless."

Many details as to droughts, and as to what should be regarded as constituting a drought, will be found in previous volumes of this series. But all that it seems necessary to reproduce are the definitions adopted in *British Rainfall*, 1880.

Absolute droughts.—Periods of 14 or more consecutive days absolutely without rain.

Partial droughts.—Periods of 28 or more consecutive days in which the total rainfall did not exceed 0·25 inch.

To these I proposed in my paper read at Manchester to add—

Long droughts.—Periods of not less than 60 days with a total rainfall of less than 2·00 inches.

Although no one else has attacked the definitions, I am not perfectly satisfied with them myself—especially with the last.

As regards *Absolute droughts*, I think that it will be better to raise the minimum duration by one day, making the definition read "Periods of more than 14 days," &c.

The following is the reason for so doing:—The Camden-square rain record now goes back uninterruptedly to 1858. I have had all the droughts taken out, and find that the number of instances of absolute droughts is as follows:—

Duration in days.	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14
No. of instances.	1	0	0	2	1	1	2	1	2	2	1	7	4	7	16
Total instances.	1	1	1	3	4	5	7	8	10	12	13	20	24	31	47

It is evident from the above:—(1) that for this station an absolute drought of 14 days is by no means remarkable, and (2) that the including of the 14th day increases the frequency of the droughts by half, from a total of 31 to 47.

A phenomenon which occurs on an average once each year is at any rate sufficiently common, and the above table shows that if the definition be altered, as suggested, to "Periods of more than 14 days," &c., we have had 31 such periods in 30 years—and this is also shown by the following table:—

ABSOLUTE DROUGHTS OF MORE THAN 14 DAYS, 1858-1887.

Year.	Began.	Ended.	Lasted.	Year.	Began.	Ended.	Lasted.
			days				days
1858	Feb. 15	March 3	17	1870	April 11	April 25	15
,,	March 10	March 30	20	,,	Sept. 14	Sept. 29	16
,,	June 14	July 3	20	1872	Aug. 10	Aug. 24	15
,,	Nov. 9	Nov. 24	16	1874	April 18	May 2	15
1861	April 4	April 22	19	1876	May 3	May 21	19
1863	June 27	July 20	24	1880	March 8	March 30	23
1864	Sept. 23	Oct. 14	22	,,	Aug. 9	Sept. 5	28
,,	Oct. 27	Nov. 12	17	1881	March 25	April 10	17
1865	June 4	June 28	25	1882	Jan. 12	Jan. 28	17
1866	July 9	July 25	17	1883	March 31	April 17	18
1867	June 16	June 30	15	1885	July 20	Aug. 3	15
1868	June 5	June 19	15	1886	June 23	July 8	16
,,	June 24	July 10	17	1887	April 6	April 20	15
,,	Aug. 27	Sept. 16	21	,,	June 9	July 3	25
1869	June 22	July 7	16	,,	July 30	Aug. 15	17
,,	Aug. 14	Sept. 4	22				

From this it will be seen that one absolute drought per year occurred in 20 out of 30 years, two or more per year in 7 of these 20, three in the years 1868 and 1887, and four in the year 1858.

The longest absolute drought was 28 days, from August 9th to September 5th, 1880, and the year with the greatest total of droughts was 1858, with four droughts of an aggregate duration of 73 days.

The above proposed extension from 14 days to 15 is not a serious change, as the intensity of a drought is always a multiple of duration by the rainfall. In the case of absolute drought the rainfall is of course 0, and the expression "Absolute drought of 15 days" is as clear and definite as anything can be. The only effect of the change is that we avoid burdening ourselves with entries of droughts unless they exceed 14 days.

Partial droughts are much more difficult to define. In a vague way we all know what is meant, but directly we attempt to put it into words difficulties arise.

We will take the most serious first. The word "partial" at once shows that some rain may fall during a partial drought—but how much? Is it to be one heavy fall, or an aggregate of falls? In either case, is the amount to be the same at all stations, or is it to be a per-centage of the mean fall at each station?

I think that we may at once negative the last suggestion for two reasons. (1.) Droughts could only be reported from stations of which the mean fall was known, and (2) the frequency and intensity of droughts could not be compared if the definition were itself variable.

It may be well to make this quite clear by an example or two. Suppose that the definition were "Partial drought—a period of at least 28 days with not more than 1 per cent. of the mean."

This would give for Seathwaite 28 days with 1·40 inches, or 0·35 a week.
,, ,, ,, Bodmin ,, ,, ·50 inches, or 0·12 a week.
,, ,, ,, Bedford ,, ,, ·23 inches, or 0·06 a week.

Thus we should give identical importance to a phenomenon six times as intense in the one place than in the other.

If, on the contrary, we adopt a fixed and universal limit of quantity, we shall find droughts most rare in the wettest districts, and that is evidently what common sense tells us is probable.

But we still have difficulties left. Is one wet day to end a partial drought? and if so, *how* wet? If one day with 0·40 in. is to be

regarded as terminating it, may it extend beyond two consecutive days with 0·25 in. on each?

The old rule defined a Partial drought as "a period of 28 or more consecutive days in which the total rainfall did not exceed 0·25 in."

The employment of this fixed value seems rather to complicate the expression. The definition should be as simple as possible, and the intensity of the drought should be indicated by its duration. Very roughly, it may be said, that the mean rainfall in the British Isles is one-tenth of an inch a day. The old rule above quoted allows 0·25 in. in 28 days, or slightly under 0·01 in. per diem, *i.e.*, one-tenth of the average fall, and this, for several reasons, seems to be a suitable amount. But, probably, it will be better to avoid the complication of time and quantity, and to adopt, as the definition of the word Partial, a rainfall not exceeding 0·01 in. per diem; this is nearly identical with the old rule, but adapts itself to droughts of any length. This gives—

Partial droughts.—Periods of more than 28 consective days, the aggregate rainfall of which does not exceed 0·01 in. per diem.

Adopting this, we have the following:—

PARTIAL DROUGHTS AT CAMDEN SQUARE, 1858–1887.

Year.	Began.	Ended.	Lasted.	Amount.	Year.	Began.	Ended.	Lasted.	Amount.
			days	in.				days	in.
1858	June 5	July 3	29	·20	1874	April 14	May 21	38	·30
1862	Feb. 1	Mar. 4	32	·31	1875	Mar. 8	April 5	29	·25
1863	April 9	May 10	32	·32	1876	June 23	July 27	35	·34
,,	June 20	July 20	31	·31	1879	Nov. 22	Dec. 26	35	·30
1863–4	Dec. 9	Jan. 11	34	·33	1880	Jan. 1	Feb. 4	35	·31
1864	July 4	Aug. 8	36	·29	,,	April 16	May 30	45	·29
,,	Sept. 22	Oct. 20	29	·15	,,	Aug. 8	Sept. 10	34	·30
1867	Oct. 30	Nov. 29	31	·18	1881	Mar. 24	April 22	30	·28
1868	June 24	July 27	34	·21	1882	Jan. 9	Feb. 13	36	·24
1869	June 18	July 27	40	·35	1883	Mar. 20	April 17	29	·21
1870	Mar. 27	April 25	30	·21	1884	July 28	Aug. 26	30	·26
,,	April 11	May 10	30	·29	,,	Sept. 7	Oct. 7	31	·30
,,	May 14	June 15	33	·20	1886	June 11	July 10	30	·21
1871	Nov. 16	Dec. 18	33	·33	1887	Jan. 20	Mar. 10	50	·49
1873	Nov. 27	Dec. 25	29	·21	,,	June 4	July 14	41	·29
1874	Jan. 25	Feb. 24	31	·31					

There are, therefore, rather more of these partial droughts at this station than there are absolute ones. Their average duration is about

32 days, and the longest 45 days in 1880, viz., from April 16th to May 30th.

It may be thought that as we have of both the Absolute and the Partial droughts on the average somewhere about one in the year, our definitions are not sufficiently rigorous; but it must not be forgotten that these values are for a station with a mean fall of about 25 inches; there are, of course, still drier stations, but the majority are wetter, and therefore, with most well kept records, the droughts will be fewer and less severe than in the specimens here given. I use the term "well kept records" advisedly, because unless the gauge is actually visited and examined every morning no one can be sure that 0·01 in. or 0·02 in. has not fallen, and therefore *ceteris paribus* the more carefully kept the record the rarer and the shorter the droughts.

Long Droughts.—This was suggested only in the Manchester paper, and not having been employed on any large scale, can be modified or abandoned without hesitation. As originally defined, it is a drought of less severity than the Partial ones, because two inches in 60 days gives about 0·03 in. per diem instead of 0·01 in. per diem, which is the limit for a Partial drought. I do not like the term Long drought, because the expression "Long drought of 95 days" would be decidedly tautological. Moreover, it seems to me that the Partial drought, as now defined, meets every requirement of the meteorologist.

Dry Periods.—There remains one difficulty, which none of my engineering friends have helped me to solve. When a hydraulic engineer is drawing up a scheme for water supply, he says that he must provide for a drought of 120, 140, 150, 160, and even 240 days, *i.e.*, three quarters of a year. Everybody knows that in the British Isles we never go for eight months without several inches of rain falling. It seems, therefore, to me rather a misnomer to designate a period during which large quantities of rain have fallen as a drought. As far as I can ascertain, the idea of a drought in connection with a gravitation waterworks is a period during which the supply going into the reservoir is less than the amount going out. If that is really what is meant by a waterworks drought, (1) no two reservoirs would give the same results, and (2) no meteorological observer can give any statistics that would be of use. This is serious, if true. Let us examine the two branches separately. No two reservoirs would give the same results, because the yield depends

on the permeability of the soil, on the slope of the hills, on the amount of vegetation, and on the ratio which the yield of the area draining into the reservoir bears to the amount drawn out of the reservoir. Secondly, no meteorologist could from mere rain gauges or hygrometers make any calculation which would accord with the above.

There are many other difficulties connected with what I may perhaps, for brevity, designate waterworks droughts, *e.g.*, the fact that the rain gauges belonging to such establishments being frequently at long distances from habitations, are often read only on the 1st of each month. This renders it desirable that the unit of time should be the month rather than the day.

Again, half-an-inch of rain falling in January would give to a reservoir as much as, perhaps more than, an inch falling in May ; and an inch in May would yield very differently if it fell on say 14 days in amounts ranging from 0·01 to 0·08 in., or if it fell on two successive days, 0·40 in. on the first of them, and 0·60 in. on the second.

It seems clear that the continuous lowering of the water level in a reservoir cannot be accepted as indicative of the length of a drought, because the rate of lowering depends on the ratio between the demand upon the reservoir and the supply to it—and the former is wholly independent of the intensity of the drought, while the ratio of the two is purely a question of construction, *i.e.*, whether the reservoir is large enough for the work it has to do. And there is this further objection, that rainfall observers could not help engineers, and that engineers themselves can learn nothing about droughts until the works have been constructed, *i.e.*, until the expenditure has been incurred.

It is obvious, but may perhaps be as well pointed out, that there is no necessary connection between a drought and the cutting off of water supply to a town. If the storage be ample or excessive, a drought may prevail, but the town need not be put upon short supply ; if, on the contrary, the provision is but slightly in excess of the ordinary consumption, then even an insignificant drought compels the supply to be diminished lest it should fail entirely.

Taking all these facts into consideration, we see no better equivalent for the so-called droughts of 120 to 240 days than the following :—

Engineers' drought.—Periods of three or more consecutive months, the aggregate rainfall of which is less than half the average.

The record at the Woodhead Reservoir of the Manchester Waterworks extends from 1855 to the present time, the mean yearly fall

being 51 inches. We have examined that record, and applying to it the rule just given, we find that the following were the droughts :—

Year.	Months.	Duration of Drought.	Total rain.	Average rain.	Per cent. of mean rain during same period.
		months.	in.	in.	
1855-56	Nov. to March	5	7·14	17·42	41
1857-58	Oct. to Feb.	5	11·40	23·08	49
1868	May to Sept.	5	9·78	21·03	46
1875	Feb. to April	3	4·73	10·62	45
1887	Jan. to Aug.	8	14·42	30·56	47

It will be seen that this gives one drought (?) of 90 days, three of 150 days and one of 240 days.

There is, I think, little doubt that droughts will eventually be expressed as fractions or percentages of the mean annual rainfall, as we have already done for dry and for wet years (*British Rainfall*, 1881, page 28), but that is too heavy an enquiry to be attempted at present.

For the present, then, we have :—

Absolute droughts.—Periods of more than 14 consecutive days absolutely without rain.

Partial droughts.—Periods of more than 28 consecutive days, the aggregate rainfall of which does not exceed 0·01 in. per diem.

Engineers' droughts.—Periods of three or more consecutive months, the aggregate rainfall of which does not exceed half the average.

There is one other feature connected with the definition of droughts which presents some difficulty, but which must be settled before really complete and accurate comparisons can be made. It does not affect Absolute droughts, but only Partial ones—and not the latter so much under the new definition as under the old. The difficulty arises from what may be called overlapping. A good (or shall we say bad) illustration of this will be found in the drought tables for 1887, in the second part of this volume, where we find among the Partial droughts (old system) for Torquay :—

June 1 to July 8, 38 days, total 0·20 in.
June 3 to July 11, 39 days, total 0·24 in.
June 7 to July 14, 38 days, total 0·25 in.

These are obviously all the same drought, but, owing to the existence of sundry small entries at each end, it can be reckoned in either of the above three ways. Evidently this would render useless any comparison of the total number of days of Partial drought at different stations. It, therefore, seems necessary to lay down the

further rule, that when a Partial drought can be computed in more than one way, *i.e.*, from more than one date, it shall be quoted only from that date which gives the greatest duration.

In order to facilitate comparison with previous years, and also in illustration of this article, the drought tables in the second portion of this volume give the values as worked out upon the old system as well as upon the new one.

HISTORIC DROUGHTS.

OPINIONS will doubtless differ respecting the value of the following list. For myself, I should neither have taken the trouble of collecting the material nor have given it a place here, had I not considered it interesting and useful. But I am perfectly aware that it is open to criticism, that old writers (like their successors) contradict themselves and each other, and that owing to defective intercommunication local droughts had to be locally endured. They could not, in the middle ages, have a supply of water sent in milk cans by train as is reported for 1887 (see p. [151]), and the cattle could not, in 24 hours, be whirled from one end of the country to the other.

It is rather curious (but perhaps explained by the generally ample rainfall of this country) that lists of droughts are very scarce. I searched in vain through all the ordinary books of reference, but obtained no help; in fact the frequency of the **S** in the following pages shows how largely we are indebted to the anonymous work in two volumes, entitled "*A General Chronological History of the Air, &c.,*" published in 1749, and always attributed to Dr. T. Short, of Sheffield. The main difficulty in quoting from him arises from the fact that he sometimes entered as British, droughts which had prevailed on the continent. I do not for an instant suggest that I have eliminated all these, but I hope that most of them have been detected. Another difficulty arises from the old way of reckoning the year from March instead of from January, whereby, I believe, that some droughts may be entered twice. It is satisfactory to find that there are very few contradictions or conflicting reports.

It may be asked whether, as I have rain records covering more than two centuries, I have compared these records with these reports. I have done so only slightly, because, although a general accordance was to be expected, perfect agreement was not, and I have tried to leave these accounts uncorrected by instrumental records.

However, I here leave the list, with all its imperfections. I do not know its equal, and if some one will set to work to revise and complete it, no one will be more pleased than I shall be.

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O. = ORMEROD, E. A. *MS.* vol., entitled *Pre-Instrumental Meteorology. Extracts from the Saxon Chronicle (Ingram's translation) and Holinshed's Chronicles of England, Scotland and Ireland.*
S. = [SHORT, T.]. *A General Chronological History of the Air, &c.*, 1749, and his *Comparative History*, 1767.
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THIRD CENTURY.

A.D.
298. Great drought and famine in Wales. **Wa.**

FOURTH CENTURY.

362. A prodigious drought. **S.**
374. Drought and famine. **S.**

FIFTH CENTURY.

439. Drought. **Wa.**
480. Drought in Scotland. **Wa.**
484. Drought dried up all springs and rivers. **S.**

SIXTH CENTURY.

589. A scorching and dry summer. **C.**

SEVENTH CENTURY.

605. Drought and scorching heat. **S.**
676-8. Great drought and famine. **L.D.**
678. It chanced that for the space of three years (as it is said) before the coming thither of Bishop Wilfrid, there had fallen no rain from the air within that province of the South Saxons, so that the people were brought into great misery by reason of famine. **O.**
680-2. Great drought. **L.D.**

EIGHTH CENTURY.

713. Great drought. **C.**
717. A dry summer. **C.**
737. Great drought and scarcity. **S.**
741. Great drought and scarcity. **S.**
743. Burning drought with earthquake. **S.**
744. Great drought in Ireland. **L.D.**
747. Great drought in Ireland. **L.D**

748. Great drought in Ireland. L.D.
759. Exceeding great drought. C.
762. Long and terrible drought with heat. S.
763. Summer so hot that the springs dried up. L.C.
764. Drought after a long and severe frost. S.
772. Great drought in Ireland. Wa.
775. Drought and excessive heat after long frost. Wa.

NINTH CENTURY.

822-3. Great drought in England. L.D.

TENTH CENTURY.

987. Excessive drought and scorching heat. L.D.
988. Great drought with heat. S.
989. Great drought with heat. S.
992. Great drought in summer. L.D.
994. Summer so hot that the corn and fruit dried up. L.C

ELEVENTH CENTURY.

1006. Great drought from Little Christmas to May. C.
1009. A burning summer. C.
1022. French and German authorities report prodigious drought and heat in England. S.
1086. Horrible drought. L.D.

TWELFTH CENTURY.

1102. Drought with excessive heat. S.
1113-4. So hot and dry that corn and forests took fire. The Thames so dry for two days that children waded over between the bridges and the town. The Medway also almost dry October 6th. L.C.
1121-2. All three spring months dry and excessive heat. S.
1129. A summer of great drought. C.
1130-1. Great drought and heat. S.
1135. Great drought and heat; woods, grass, and corn burnt, and rivers dried up. S.
1136. Great drought. Wa.
1137. Heat and drought so excessive that navigable rivers were dried up. L.D.
1144. Great drought all harvest and long after. S.
1149. Winter dry. S.
1152. From March 13th to harvest, neither rain nor dew, and the greatest heat. S.
1177. In summer and harvest so great a drought that the seed sown was lost. L.D.

THIRTEENTH CENTURY.

1222. Great drought, late sown corn died. S.

1224. Great drought in winter. Wa.

1236. A great drought in summer continuing by the space of four months or more. O.

1236. In the summer of this year, after a winter beyond measure rainy, as has been mentioned, a constant drought, attended by an almost unendurable heat, succeeded, which lasted 4 months or more. The marshes and lakes were dried up to their very bottoms, water mills stood uselessly still—the water being dried up; and the earth gaped with numerous fissures; the corn, too, in a great many places, scarcely grew to the height of two feet. *Matthew Paris's Chronicle.*

1240. A three months' drought. S.

1241. From the Annunciation to SS. Simon and Jude, continued drought and intolerable heat dried up deep lakes and extensive marshes, drained many rivers, parched up the warrens and suspended the working of mills; hence the pastures withered away, herbage died, and consequently the flocks and herds pined away with hunger and thirst. *Matthew Paris's Chronicle.*

1243. Great continued drought. S.

1244. Great continued drought. S.

1252. The greatest drought in England all spring and summer, and again from October. S. Much cattle destroyed by drought. C. During most of March, and the whole of April and May, the earth was parched by the burning heat of the sun, the wind continually blowing from the E., N. or N.E. . . . . The sun rising to its solstitial height in the heavens, its immoderate and unendurable heat so burnt up the surface of the earth that all the herbage was withered, and the meadows refused all kinds of food to the cattle. *Matthew Paris's Chronicle.* On the 13th day of March. Then began a sore drought, continuing a long time. . . . . The grass was so burned up in pastures and meadows, that if a man took up some of it in his hands it straight fell to powder, and so cattle were starved for lack of meat. And because of the exceeding hot nights there was such abundance of fleas, flies and gnats that people were vexed and brought in case to be weary of their lives. And herewith chanced many diseases, as sweats, agues and other. In the harvest time fell there a great death and murrain amongst cattle, and especially in Norfolk, in the Fens and other parts of the south. This infection was

such that dogs and ravens feeding on the dead carrion, swelled straightway and died, so that the people durst eat no beef lest the flesh haply might be infected. . . . . The cause of the death of cattle was thought to come hereof. After so great a drought (which had continued by all the space of the months of April, May, June and July) when there followed good plenty of rain, the earth began to yield her increase most plenteously of all growing things, though not so wholesome or of such kindly substance, as in due time and season she is accustomed to bring forth, and so cattle which before were hunger-starved, fed now so greedily of this new grass sprung up in undue season, that they were suddenly puffed up with flesh, and such unnatural humours, as bred infections amongst them, whereof they died. **O.**

1253. Great and prolonged drought in spring and summer. *Matthew Paris's Chronicle.* Also in the spring and summer of this year was a great drought, and in the harvest season fell such wet that great floods, by the rising of the rivers, and overflowing their banks, did much hurt in sundry places of the realm. Again in the latter end of the harvest about Michaelmas, there was eftsoon such a drought that men could get no grinding at the mills, but were constrained to go in some places a day's journey off to get their corn ground. **O.**

1255. Dry spring with northerly wind ; no rain during April. In this summer a drought prevailed, owing to the continuance of equinoctial winds, which altogether stopped the dews of morning and checked those of evening, and continued from the middle of March to the first of June. The grains of corn could be seen lying in the dust whole, not decaying nor germinating. *Matthew Paris's Chronicle.*

1259. Droughts. **S.**

1260. No rain all the year till August. **S.**

1262. Great drought this summer. **C.**

1277. So hot and dry in summer, scarcely any fodder. **L.C.**

1281. So great a drought that men passed over the Thames, dry shod, between Westminster and Lambeth, and over the Medway between Strood and Rochester. **L.C.**

1285. Such drought and heat as killed most grain. **S.**

1288. Heat and drought so intense as killed many. **S.**

1291. Drought all summer. **S.**

1293. Excessively hot in summer with drought. **S**

1294. Very great drought. **S.**

Fourteenth Century.

1300. According to the Duchy of Cornwall records, no hay was made at Mere on account of the dry summer.
1321. One of the greatest droughts with heat. **S.**
1324. Great drought in summer.
1325. Exceedingly hot and dry summer, so that springs and rivers failed, and cattle died for want of water.
The summer this year proved exceedingly hot and dry, so that springs and rivers failed to yield their accustomed course of waters, by reason whereof great numbers of cattle and beasts, both wild and tame, died through want of convenient liquor to assuage their vehement thirst. **O.**
1325-6. A very great drought. **L.D.**
1345. Called "the dry summer," as from March to the end of April little or no rain fell. **L.C.**
1350. Drought, after floods, storms and meteors. **S.**
1352. Great drought; cattle died for want of water. **S.**
1353. End of March to end of July little rain fell; grass so scarce cattle pined away. *Holinshed.*
1354. At Nottingham no rain fell from the end of March to the end of July, a period of four months. Nottingham suffered very severely from this great drought. **L.C.**
1356. Great drought and heat in May and June. **S.**
1361. Very grievous drought and heat in May and June. **S.**
1375. Excessive drought with heat. **S.**
1394. Excessively hot and dry summer. **L.C.**

Fifteenth Century.

1406. Warm all summer. **S.**
1473, 4, 5. Great drought and heat after the two comets of 1472. Woods took fire, most rivers dried. **S.**
1477. Great heat with drought causing a plague. **S.**
1479. Great heat with drought. **Wa.**
1490. Drought, and generally healthy. **S.**
1492. So great a drought that many rivers were almost dried up, and much cattle died of thirst. **C.** Drought in Ireland. **L.D.**
1498. Very great drought. **S.** Also this year was a great drought, by reason whereof a load of hay, which was before sold in London for five shillings, was this year sold for ten or twelve more. **O.**

Sixteenth Century.

1503. Great drought in summer. **S.**
1516-7. Drought and heat. **S.**

1528. Drought in England from February 1st to April 12th and all July and August. S.

1539. Heat and marvellous drought. C. Excessively hot and the rivers dried up in summer. L.C.

1540. After a calamitous year, fine weather and heat lasted from February till September 19th, during which interval rain fell only six times. L.C. Great heat and drought. S.

1541. At Nottingham remarkable drought; almost all the small rivers dried up, and the river Trent diminished to a straggling brook. The river Thames so low that the sea water even at ebb extended beyond London Bridge. Much cattle died for want of water, especially in Nottinghamshire, and many thousands of persons died from grievous diarrhœa and dysentery. L.C. [? Due to bad water.]

1552. Parching drought in England. S.

1556. The drought was so great that the springs failed. L.C.

1558. Drought and hot the whole year. S.

1566. Drought all summer and harvest. S.

1567. Excessive drought in summer. S.

1568. Excessively hot with drought. S.

1575. Intense heat and extreme drought in summer. C.

1583. Drought excessive, hot and dry summer. S.

1590. Great drought and heat all the year. S.

1591-2. In the spring an uncommon drought in Nottinghamshire, it being succeeded this summer by strong W. winds and little rain. The Trent and other rivers were almost without water. The Thames, historians say, was so dried up, that a man might ride over it on horseback near London Bridge. L.C. Great drought. S.

1598. Great drought and very hot. S.

1599. April and May cold and dry, June and July dry and hot. S.

Seventeenth Century.

1602. Drought in harvest and winter. S.

1607. Summer hot and dry. S.

1610. Excessively hot and dry. S.

1611. Great drought in Derbyshire. L.D.

1612. Great drought January to May. S.

1614. At York a drought from spring to August, causing a great scarcity of hay and corn. L.C.

1615. Great drought in Derbyshire March 25th to August 4th.

1616. Summer excessively hot with drought. S. Great drought, grass scarce. L.C.

1626. Great heat and drought in summer. S.

1630. Very dry summer in Staffordshire. Wa.

1635. Great heat and drought in summer and autumn in Leicestershire. L.D.

1636. Very hot and dry summer; from March to August not a drop of rain. L.D.

1637. Excessively hot and dry. S.

1638. Excessively hot and dry. S.

1643-5. Very hot, dry summers. S.

1651. Scorching hot summer, dry year. S. Great drought in Kent. L.D.

1652. Scorching hot summer, dry year. S. Warmth very great, the driest summer ever known in Scotland. L.C. May 25. After a drowth of nearly four moneths, there fell . . a tempest. Evelyn.

1653. Scorching hot summer, dry year. S.

1654. Scorching hot summer, dry year, many rivers dried up. S.

1656. Great drought till spring. S.

1657. Great drought. Great heat also. S.

1661. The (Derbyshire) Derwent was so dried up that in many places there was no water, and people might go over dry shod. L.C.

1666. Scorching hot and dry. S. Long and extraordinary drowth in August and September. Evelyn.

1669. Drought all the year and hot summer. S.

1676. Very dry, hot summer.

1678. All dry, hot, and clear. S.

1680. Dry hot summer. S.

1681. May 25. There has scarcely fallen any rain since Christmas. June 12. There still continues such a drought as has hardly ever been known in England. Evelyn. Dry spring, and great drought in summer. S.

1684. July 2. An excessive hot and dry spring, and such a drought continues as is not in my memory. July 13. Some small sprinkling of rain; the leaves dropping from the trees as in autumn. August 10. We have now rain after such a drought as no man in England had known. August 24. Excessively hot, many trees died for want of refreshment. Evelyn. Spring dry, summer very hot with drought. S.

1685. June 14. Such a dearth for want of rain as never was in my memory. We had hitherto not any rain for many months, so that the caterpillars had already devoured all the winter fruits through the whole land, and even killed several greater old trees. Evelyn.

1686. A droughty spring, and an intolerably hot and dry summer. S.

1687. The summer very dry and extremely hot. L.C. [S. says great floods and tempests in summer.]

1689. Jan. 23. An extraordinary drowth to the threatening of great want. **Evelyn.**

1691. Dec. 26. An exceeding dry and calm winter; no rain for many past months. **Evelyn.** Excessive hot and dry summer. **S.**

1692. Jan. 24. A frosty and dry season continued. July 25. Summer exceeding wet, while in Ireland they had not known so great a drowth. **Evelyn.**

1694. May 6. Scarcely one shower has fallen since the beginning of April. **Evelyn.** A burning hot droughty summer. **S.**

1699. June 11. After a long drowth we had a refreshing shower. July 23. Seasonable showers after a continuance of excessive drowth and heat. **Evelyn.** Harvest, hot with drought till the following January. **Wa.**

Eighteenth Century.

1701. May. A great dearth, no considerable rain having fallen for several months. May 17. Plentiful showers. **Evelyn.**

1702. In Lancashire, March, April and May very dry; grass scarce. In Essex, March dry, April to 23 wet, then scarcely any rain till May 29. **L.C.** March to October perpetual dry weather. **S.**

1704. Great drought. **L.D.** Hottest and driest for 20 years. **S.**

1705. Feb. 21. Remarkable fine weather. Mar. 11. An exceeding dry season. June. The season very dry and hot. **Evelyn.** Drought till end of August. **S.**

1706. Dry spring, no rain for three months before harvest. **Boyle**

1713-19. All a moderate drought, little rains, but rich dews. 1714, 17, 18, 19, very hot summers.

1714. Excessive drought and heat, with alarming consequences. **W.** Great drought. **L.D.** Dry in England and Ireland. **C.** Little above two-fifths of the rainfall of 1709. **S.**

1715. Drought. **S.** Dry in England and Ireland. **C.**

1716. In consequence of a long drought, and a W.S.W. wind, the river Thames was blown so dry that thousands of persons passed across on foot, under the arches of London Bridge. **L.C.** Excessive dry in England and Ireland to end of August. **S.** Excessive drought till end of August. **Wa.** The Thames dry both above and below Bridge, except a very narrow channel. **Boyle.**

1717. Dry in England and Ireland. Summer hot and dry. **C.**

1718. Dry in England and Ireland. Summer warm and fair. **C.**

1719. Dry in England and Ireland. One of the hottest summers in England. Drought from May 1 to Nov. 5. **L.D.**

1723. Summer so remarkably dry that salt water flowed to the quay of Limerick. C. Summer dry, but not hot. L.D.
1725. From the middle of January to the middle of April, it was drier than ever known in this country. L.C.
1726. A hot dry season, a moor near Canterbury caught fire in August and burnt for a month. L.C.
1728. May and June hot and dry. L.D.
1729. June drought at Ashby de la Zouch. L.C. Summer mostly dry in Ireland. C.
1730. August drought at Ashby de la Zouch. LC.
1731–4. September 28, 1731, to June 12, 1734, mostly droughty. Springs failed in most places. S.
1735. Dry hot summer. S. In S. of Scotland, hot and dry till July 30. L.C.
1736. April and May droughty in Northamptonshire. L.D. From Oct 17 to end of year, only five showers of rain and three falls of snow at Ripon. L.D.
1737. Dry summer in Sheffield, and up to June 21 in W. of England. L.C. July and September very hot and dry. S.
1738. Drought in Sheffield throughout August and till Sept. 7. L.C. And elsewhere throughout July and August. S.
1739-40 Not three hours continued rain from the beginning of Nov. to the following April. Summer dry; great scarcity of water. C. Excessive drought continued till August. S.
1741. Spring excessively dry, and summer much hotter than of late years in Ireland. C. Dry summer. L.C. April and May very droughty. From December to the first week in June was almost one continued drought. S.
1746. From June 20th, greatest drought since 1719. L.D. So great a drought that low ground dug two feet deep was as dry and as dusty as ashes at the bottom. S.
1747. Scotland. Autumn hot and dry; the rivers lower than ever known. L.C. Summer hot and dry in Ireland. C. Great heat and drought. S.
1748. From May 11 to Oct. 17, no rain except some slight showers. From May to Dec. 23, the springs were without water. No rain this summer and autumn penetrated two inches into the ground. S. Summer warm and dry in Ireland. C.
1750. Hot and dry summer. W.
1759. Hot summer, and inclined to dryness. W.
1760. Very hot and dry summer. W. Great drought. S.
1761. Drought in summer. L.D. Extraordinarily dry summer in Ireland. C.
1762. Spring and summer dry; heaths and moors on fire from

excessive drought. L.D. Excessive drought in Ireland. C. Very dry and burning summer; drought greatest from middle of May to the third week of July. W.

1765. Very dry summer, with parching N.E. winds. Extreme drought in Ireland in summer. C.

1779. Hot, dry summer. L.D.

1780. Summer hot and dry. S.

1781. Summer very hot and dry. L.D.

1785. Summer in Ireland remarkable for heat and drought. C. May 9. Great drought, boats aground at Kew and Richmond. *Annual Register.* May 11, owing to drought, heath fires broke out at Windsor and in Kent, and burned for some days. L.D.

1786. Drought in Lancashire from July 22nd. L.D.

1788. Drought in winter, spring, and autumn. W.

1791. May, June, August, and September, very dry. W. Drought in Rutland from March to June. L.D.

1793. Intensely hot and dry in July. W.

1794. The warmest and driest summer in Ireland since 1733. C.

1795. Extraordinarily hot and dry in September. W.

1796. Summer hot and dry. S.

NINETEENTH CENTURY.

1800. No rain fell in England for 74 days previous to Aug. 19th. Wa. Excessive drought, June 22nd to Aug. 19th. W. Summer in Ireland unusually hot and dry. C.

1802. August, Sept. and part of Oct. very hot and dry. W.

1803. Sept. 17. Ireland. The country was nearly burned by the drought, which prevailed since June. So much heat and such long continued drought occurred, that springs and even rivulets were dried up. C. July very hot, dry and burning. W. August 21. So few rainy days within a twelvemonth have not been experienced in any year since 1762 as in the last 365 days; from which extreme drought many inconveniences have occurred. At Pevensey, a flock of 300 sheep being, after a long thirst, driven to a pond, drank so immoderately that upwards of 100 of them died immediately. *Annual Register.*

1804. September hot and dry. W.

1807. July and August chiefly very hot and dry. W.

1815. Remarkably fine and warm, March till October both inclusive. W. Sept. 16. The great drought which has so long prevailed is now beginning to be severely felt throughout the country; in many parts the water in the ponds used for cattle is entirely exhausted, and none can be procured

except from the rivers, in many cases at a considerable distance from the farmers' dwellings. Grass had become so universally scarce that the farmer was obliged to feed his cattle with hay as in the severest winter. *Annual Register.*

1817. Ireland. Unprecedented drought in June. Crops burned up. **C.**

1818. Ireland. The hottest summer for many years. Scarcely any rain fell for the space of nine months, so that springs and rivers were dried up. **C.** Hot, dry and burning, from the end of May to September 5th. Grass completely burned up, and the harvest speedily ended without a shower. Wheat good; other crops very light. **W.**

THE DROUGHT OF 1818.

Mr. Thomas Barnes, of Bicton, Devonshire (head gardener to the late Lady Rolle), wrote to a paper some years back :—"The year 1818, now fifty years ago, was the longest, hottest, and driest summer I ever remember. Talavera wheat had been only introduced a few years, and was then just getting into general repute. A hilly field, facing the south, was sown with this wheat in the autumn of 1817. It was ripe and cut on the 29th of June; some of it was thrashed on the 2nd of July, ground on the 4th, and bread made from it on the same day. The owner of the field was a large miller. This was the earliest wheat I ever saw. The whole harvest was general by the 7th July, and all cut and cleared by about the 25th of that month. The whole of the country was of the same colour; not a blade of green grass was to be seen—not even turnip or cabbage; cattle perished for the lack of food and water; immense numbers of large trees died; plantations on dry, brashy soils, and everything in many hedges for long distances, died right out. Trees that lived lost their leaves; people had to go many miles for water and pay dear for it. For all that, we had afterwards one of the most plentiful, prosperous, and fruitful seasons which I ever yet saw, or remember to have seen. Wheat was a wonderful crop. and so good in quality that the bread was splendid. Both it and wheat were soon reduced in price by two-thirds. Barley and Lent or spring sown crops were generally short, particularly late sown, as it never had any rain from seed time till harvest. The best barley was just equal in price with wheat, the only period I recollect it being so in my time. Hops were a wonderful crop, and first-rate in quality. They came down to 1s. per pound; apples from 1s. to 3s. per bushel; and the best Orleans plums, and other good varieties, realised from 2s. to 2s. 6d. per bushel, and plenty of common plums were sold at one halfpenny per quart, cherries one halfpenny per pound. When the fine rains set in in September, the land was so sweetened and pulverised, hot as a furnace or hot bed, smoking like a lime kiln, that folks said it was too late for turnips. However, some cultivators did venture, the seed vegetated so quickly, that the rows were green or most luxuriant in six weeks, and there was produced most splendid turnips as large as a child's head. As to grass and other vegetation, in a few weeks they were so luxuriant, plentiful, and of such a splendid quality, that all kinds of stock throve and fattened at such a rate as was never before seen."

1819. Hot and dry from July 1st, grass quite seared away. **W.**

1822. Great drought and heat, May 13th to June 28th. The young

barley in many places was seared before the grain was formed. W.

1825. Ireland. Extreme drought in summer and autumn. C Very parching July. W.

1826. Ireland. Remarkably hot and dry from March to June. C. Excessive drought in June. W.

1831. Great dryness from middle of July to August 31st. W. Long continued drought in Ireland checked vegetation. C.

1833. Great heat and drought all May and to June 10th. W.

1834. Sharp drought February to May, and with little intermission to July 18th. November to December also dry; water scarce. W.

1835. Very hot and dry summer. No rain in Suffolk from July 14th to August 25th; pastures burnt up, but wheat sound and abundant. W.

1836. Irish cereal crops defective from excessive drought. C.

1840. April and August very dry. W.

1842. Very hot summer, especially August, which was very dry. W.

1843. Severe drought in the first three weeks of September. W.

1844. Extraordinary drought Lady Day to Midsummer; fine wheat crop. W. Ireland. Excessive drought in spring, soil so parched that it required a pick-axe to break it. Most of the springs dried up. C.

1845. Ireland. February unusually dry, March little rain, April unusually dry, and very little rain in May. C. Drought and heat. L.D. Unusually dry Oct. 12th to Nov. 16th. W.

1846. Severe drought with heat May 21st to Sep. 23rd. One of the hottest summers on record. W.

1847. Ireland. March, July, August and September more than usually dry; green crops injured. C. July and August extremely hot and dry. W.

1849. February and March remarkably dry. W.

1850. June very dry and hot, September very dry. W.

1851. Severe drought in Suffolk at end of June. W. Ireland. Much drier than usual. C.

1857. Drought and heat. L.D.

1858. Drought and heat. L.D.

1859. Drought and heat. L.D.

1868. Drought and heat. L.D.

1869. Drought and heat. L.D.

1870. Drought and heat. L.D.

1874 Very dry summer, good harvest.

1879. Drought from October. L.D.

ROTHERHAM EXPERIMENTAL GAUGES.

FULL description of these gauges, with engravings and ground plan, and view of them all in position having been given, it is upon the present occasion only necessary to preface their records during the exceptionally dry year, (when two of them each collected less than 13 inches, and none of the ordinary ones collected 14½ inches), by a brief abstract of the results.

In the first place, we may remind our readers that the gauges quoted as Nos. 2, 3, 4, 5 and 6, are at intervals of 110 feet along a bank which runs from S.W. to N.E. No. 2 is at the S.E. end, where the bank is not very much above the general level of the ground. Nos. 3, 4, and 5 are where the ground is most below the level of the bank, and No. 6 towards the other end where the ground is rising towards the level of the bank. At each position there are two gauges—one read daily, the other monthly.

The following table epitomizes the results :—

DAILY GAUGES.

YEAR.	ACTUAL TOTALS.					DIFFERENCE FROM No. 4.			
	No. 2	No. 3	No. 4	No. 5	No. 6	No. 2	No. 3	No. 5	No. 6
1883	23·00	21·97	22·71	22·11	23·44	+ ·29	—·74	—·60	+ ·73
4	13·99	13·73	13·55	13·39	13·98	+ ·44	+·18	—·16	+ ·43
5	19·49	19·37	19·72	19·55	20·56	— ·23	—·35	—·17	+ ·84
6	23·94	24·01	24·33	24·05	25·26	— ·39	—·32	—·28	+ ·93
1887	13·35	12·60	12·87	13·35	14·27	+ ·48	—·27	+·48	+1·40
Mean	18·75	18·34	18·64	18·49	19·50	+ ·12	—·30	—·15	+ ·87
MONTHLY GAUGES.									
1883	24·41	22·48	22·15	22·46	23·66	+2·26	+·33	+·31	+1·51
4	15·51	14·06	13 47	13·76	14·57	+2·04	+·59	+·29	+1·10
5	20·81	18·90	19·70	20·13	20·26	+1·11	+·80	+·43	+ ·56
6	23·85	23·64	24·42	24·05	25·38	— ·57	—·78	—·37	+ ·96
1887	14·04	13·01	13·11	13·00	13·75	+ ·93	—·10	—·11	+ ·64
Mean.....	19·72	18·42	18·57	18·68	19·52	+1·15	—·15	+·11	+ ·95
Mean of Means	19·24	18·38	18·60	18·59	19·51	+ ·64	—·22	—·02	+ ·91

Hence we see that all six of the middle gauges Nos. 3, 4 and 5, whether read daily or monthly, generally agree within 0·75 in.,

that on the average of the five years the fall at the two ends was 0·78 in. greater than in the middle of the bank, and that the middle gauges, on the average, all agreed within 0·40 in.

RAIN GAUGE EXPERIMENTS, ULLEY RESERVOIR, ROTHERHAM, 1887.

Lat. 53° 22′ 59″ N. Lon. 1° 19′ 9″ W. Altitude 184 ft.

Months.	Five Mouthed Gauges. 5 ft. above ground.					Inclined Rotating Gauges. 5 ft. above ground.			
	Facing East.	Facing North.	Facing West.	Facing South.	Horizon Centre.	22½°	45°	67½°	90°
January	2·836	2·070	·485	1·460	1·014	2·102	3·190	3·432	3·520
February.....	·743	·213	·081	·400	·480	·617	·682	·433	·589
March	1·199	1·485	·515	·491	·918	1·568	2·310	2·603	2·847
April	·256	·366	·260	·184	·727	·765	·886	·799	·879
May.....	·494	1·263	·376	·419	1·194	1·539	1·925	1·975	1·891
June	·358	·213	·057	·071	·252	·299	·393	·380	·357
July	1·193	·740	·314	·553	1·886	2·157	2·356	2·381	1·586
August	·143	·477	·431	·545	2·138	2·234	2·263	1·669	1·232
September ...	·503	·305	·453	·997	1·618	1·977	2·254	2·151	1·927
October	·165	1·727	·368	·402	1·645	2·144	2·683	2·590	2·336
November ..	1·357	·727	·090	·882	1·162	1·808	2·554	2·661	2·577
December ...	·402	·662	1·185	·869	1·288	1·667	2·405	2·809	2·935
Year	9·649	10·248	4·615	7·273	14·322	18·877	23·901	23·883	22·676

Months.	Position No. 1. 1 ft. above ground.			Position No. 2. 5 ft. above ground.			Position No. 3. 5 ft. above ground.		
	Read Daily.	Read Mnthly.	Diff.	Read Daily.	Read Mnthly.	Diff.	Read Daily.	Read Mnthly.	Diff.
January	1·447	1·415	—·032	1·220	1·469	+·249	1·076	1·049	—·027
February.....	·511	·554	+·043	·428	·439	+·011	·455	·460	+·005
March	1·061	1·127	+·066	·709	·809	+·100	·738	·821	+·083
April	·772	·841	+·069	·646	·705	+·059	·625	·727	+·102
May.....	1·368	1·287	—·081	1·084	1·055	—·029	·955	1·055	+·100
June	·256	·234	—·022	·322	·202	—·120	·211	·228	+·017
July.....	1·943	1·951	+·008	1·784	1·797	+·013	1·762	1·711	—·051
August	2·184	2·234	+·050	2·053	2·064	+·011	2·010	2·033	+·023
September ...	1·666	1·779	+·113	1·502	1·555	+·053	1·436	1·450	+·014
October	1·814	1·888	+·074	1·563	1·577	+·014	1·445	1·593	+·148
November ...	1·352	1·378	+·026	1·097	1·096	—·001	1·030	1·016	—·014
December ...	1·074	1·254	+·180	·937	1·273	+·336	·854	·868	+·014
Year	15·448	15·942	+·494	13·345	14·041	+·696	12·597	13·011	+·414

Months.	Position No. 4. 5 ft. above ground.			Position No. 5. 5 ft. above ground.			Position No. 6. 5 ft. above ground.		
	Read Daily.	Read Mnthly.	Diff.	Read Daily.	Read Mnthly.	Diff.	Read Daily.	Read Mnthly.	Diff.
January	1·185	1·146	—·039	1·260	1·172	—·088	1·296	1·272	—·024
February.....	·440	·450	+·010	·431	·450	+·019	·491	·469	—·022
March	·792	·800	+·008	·838	·855	+·017	·942	·890	—·052
April	·636	·685	+·049	·630	·685	+·055	·664	·692	+·028
May.....	1·003	1·085	+·082	1·137	·800	—·337	1·201	1·183	—·018
June	·226	·213	—·013	·249	·213	—·036	·272	·256	—·016
July...	1·722	1·732	+·010	1·715	1·722	+·007	1·873	1·674	—·199
August	1·965	2·000	+·035	2·019	2·000	—·019	2·070	2·061	—·009
September ...	1·389	1·456	+·067	1·332	1·476	+·144	1·486	1·476	—·010
October	1·596	1·613	+·017	1·763	1·700	—·063	1·791	1·738	—·053
November ...	1·098	1·100	+·002	1·127	1·095	—·032	1·218	1·220	+·002
December ...	·822	·826	+·004	·845	·832	—·013	·962	·823	—·139
Year	12·874	13·106	+·232	13·346	13·000	—·346	14·266	13·754	—·512

THE CAMDEN SQUARE EVAPORATION EXPERIMENTS.

No alteration has been made in the tank or in its position, and as the details have been given in previous volumes, it is here necessary to state only the rough outlines, namely, that a galvanized iron tank 6 ft. square and 2 ft. deep is sunk 1 ft. 8 in. deep in a grass plot. The tank holds about 450 gallons, and the mode of measurement is so delicate that a variation of 1-100th of an inch in the level of the water is easily read off.

The values given in the following table agree closely with those for previous years, subject obviously to the consideration that a year of drought like 1887 naturally rendered the evaporation greater than usual.

It is very desirable that similar experiments should be made in some very exposed and windy position.

DAILY EVAPORATION AT CAMDEN SQUARE, FROM JULY, 1887, TO JUNE, 1888.

	1887.						1888.					
Date.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1	·12	·10	·05	·03	·04	·00	·01	·03	·04	·03	·08	·11
2	·07	·13	·05	·03	·01	·00	+ ·04			·02	·04	·11
3	·13	·10	·10	·03	·01	·00		·03	·10	·03	·06	·17
4	·18	·09		·04	·01	·02	·02	·00		·03	·08	·13
5	·17	·11	·04	·04	·01	·01	·00	·02	+ ·04	·04	·10	·09
6	·13	·13	·07	·04	·01	·01	+ ·02	·00	·02	·04	·04	·03
7	·13	·15	·05	·03	·01	+ ·01	+ ·01	·01	·02	·02	·09	·05
8	·18	·15	·05	·04	·02	+ ·01	·00	·00	+ ·01	·04	·10	·01
9	·14	·16	·04	·02	+ ·02	·01	+ ·01	·02	·01	·03	·13	·03
10	·13	·12	·08	·04	·00	·01	·00	·00	·02	·02	·11	·11
11	·12	·12	·05	·05	·01	·00	·00	·00	·01	·04	·08	·15
12	·13	·09	·06	·04	·01	·01	·00	·01	·03	·02	·09	·11
13	·15	·20	·08	·00	·03	·00	·00	·00	·04	·09	·12	·17
14	·10		·03	·01	·03	+ ·01	·00	·01	+ ·01	·02	·09	·04
15	·08	·07	·02	·02	·01	·00	·00	·00	·03	·04	·10	·00
16	·11	·04	·02	·02	·01	·00	·04	·02	·04	·08	·06	·10
17	·11	·05	·01	·02	·02	·00	·01	·03	·01	·04	+ ·06	·05
18	·16	·05	·05	·03	+ ·04	·00	+ ·02	·00	·09	·03	·05	·04
19	·11	·06	·03	·02	·05	+ ·02	·01			·04	·13	·05
20	·15	·04	·03	·02	+ ·07	+ .01		·02	+ ·01	·03	·10	+ ·02
21	·15	·05	·04	·02	+ ·01	+ ·01	·01	·04	·00	·04	·12	·02
22	·08	·05	·04	·01	·03	·00	·01	·00	+ ·02	·02	·06	·06
23	·13	·05	·05	·01	·01	·00	·00		·01	·01	·17	·12
24	·11	·07	·06	·05	·01	·00	+ ·01	·10	·00	·01	·15	·11
25	·07	·05	·03	·02	·00	·00	·01		·01	·05	·13	·06
26	·10	·03	·00	·01	+ ·01	·03	·02		·01	·06	·09	·02
27	·13	·03	·03	·00	·02		+ ·02	+ ·01	·01	·05	·06	·04
28	·12	·03	·03	·01	·00	·01		·04	·02	·04	·05	·06
29	·08	·06	·04	·00	·00				·03	·06	·08	·08
30	·07	·07	·02	·05	·00	·02	·06	...	·01	·09	·09	·14
31	·12	·09	...	·03	...	·01		...	·01	...	·12	...
Total	3·76	2·54	1·25	·78	·21	·07	·07	·37	·48	1·16	2·71	2·24
Max.	·18	·16	·08	·05	·05	·02	·04	·04	·05?	·09	·17	·17

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1885.	·20	·38	·86	1·71	1·98	2·77	3·29	2·25	1·13	·77	·17	·11	15·62
1886.	·23	·13	·53	1·59	1·78	2·93	3·12	1·86	1·46	·63	·27	·12	14·65
1887.	+ ·07	·29	·76	1·72	1·79	3·68	3·76	2·54	1·25	·78	·21	·07	16·78
1888.	·07	·37	·48	1·16	2·71	2·24							

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1885.	—	04	·06	·12	·15	·14	·17	·14	·11	·05	·02	·04
1886.	·01	·04	·08	·12	·15	·16	·22	·13	·10	·07	·04	·04
1887.	·04	·05	·06	·11	·14	·23	·18	·16	·08	·05	·05	·02
1888.	·04	·04	·05?	·09	·17	·17						

RAINFALL AT THE ROYAL OBSERVATORY, GREENWICH.

Lat., 51° 28′ 38″ N. Long., 0° 0′ 0″.

Communicated by W. H. M. CHRISTIE, ESQ., M.A., F.R.S.,
Astronomer Royal.

1887	No. of days on which rain fell.	MONTHLY AMOUNT OF RAIN COLLECTED IN EACH GAUGE.							
		Osler's Anemometer.		On roof of Octagon Room.	On roof of Magnetic House.	On roof of Photographic Thermometer Shed.	Gauges partly sunk in the ground.		
		Self-registering Gauge.	Second Gauge.						
Height above Ground	...	50ft. 8in.	50ft. 8in.	38ft. 4in.	21ft. 6in.	10ft. 0in.	5in.	5in.	5in.
Height above Mean Sea Level	...	205ft. 6in.	205ft. 6in.	193ft. 2in.	176ft. 4in.	164ft. 10in.	155ft. 3in.	155ft. 3in.	155ft. 3in.
		in.	in.	in.	in.	in.	in.	in.	in.
January	14	0·500	0·560	0·834	0·887	1·132	1·153	1·190	1·210
February	4	0·292	0·292	0·373	0·496	0·503	0·528	0·521	0·544
March	10	0·742	0·765	1·043	1·210	1·390	1·353	1·354	1·377
April	11	0·886	0·869	1·309	1·575	1·728	1·747	1·756	1·777
May	19	0·837	0·904	1·229	1·633	1·702	1·727	1·672	1·730
June	3	0·755	0·746	0·977	1·246	1·228	1·229	1·229	1·241
July	10	0·922	0·934	1·066	1·247	1·287	1·290	1·239	1·274
August	9	1·832	1·851	2·118	2·276	2·347	2·345	2·302	2·347
September	16	1·430	1·428	1·799	2·083	2·159	2·214	2·195	2·232
October	11	0·705	0·691	0·819	0·984	1·034	1·030	1·037	1·048
November	20	2·415	2·562	3·051	3·675	3·810	3·775	3·856	3·818
December	16	0·781	0·747	1·033	1·334	1·388	1·468	1·507	1·502
Sums	143	12·097	12·349	15·651	18·646	19·708	19·859	19·858	20·100
No. of Gauge	...	1	2	3	4	5	6	7	8

A rainy day is considered to be one on which 0·005 in., or more, is collected in gauge No. 6.
Of the ground gauges 6, 7, and 8, No. 6 is taken as standard, No. 7 is the old monthly gauge, and No. 8 is a gauge added in 1881.

April 13, 1888.

WILLIAM ELLIS,
For the Astronomer Royal.

THE STAFF OF OBSERVERS.

THIS is the section which tests most severely the general administration of rainfall work. The carefulness of the observers is shown by other parts of this volume, but here is at once patent whether the staff is increasing or decreasing, whether undue preference or neglect is being shown to any locality or country. I am glad to say that our gains far exceed our losses, and that our staff is stronger and better than ever.

The following table shows that for England and for Wales the number of perfect records is beyond precedent, that for Scotland there are practically the same number as in previous years (with a slight tendency to decrease), that in Ireland there is a slight increase.

Number of perfect rainfall records published in the volumes of British Rainfall for the undermentioned years :—

Years.	England.	Wales.	Scotland.	Ireland.	Gross Total.
1860.....	163	5	—	—	168
1861.....	334	9	109	20	472
1871.....	1038	88	311	67	1504
1881.....	1548	131	313	153	2145
1882.....	1710	145	335	148	2338
1883.....	1785	145	357	146	2433
1884.....	1812	143	353	155	2463
1885.....	1825	161	346	154	2486
1886.....	1835	155	344	154	2488
1887.....	1890	164	343	158	2555
Difference from 1886—					
Increase	55	9	—	4	67
Decrease	—	—	1	—	—

Several causes have conspired to produce this improvement in our staff, for it must not be forgotten that the gain of 67 stations is not *merely* 67 new stations, it represents many more.

We have seen by the Obituary that the deaths alone exceeded 50, and for every death there are probably three or four removals, or broken records, so that the actual number of new records obtained

for the year is probably nearly 250. Mere number is, however, of quite secondary importance, the all important matter is good distribution. Before considering this, we may mention two actions to which the improvement for 1887 is largely due. The first is that the gauges in the Lake District, provided at the cost of the Royal Society, appear this year for the first time; and the second, that conscious of the exceptional character of the year 1887, I addressed letters to the *Times*, and to fifty-four provincial papers, inviting information as to any persons keeping records but not hitherto communicating them for insertion in this volume.

The distribution is best seen from the general tables, and need not be elaborated here. In England the improvement is chiefly in Lancashire, Yorkshire, and the northern counties. In Wales, Cardiganshire shows great (and necessary) improvement. In Denbigh the loss of Mold is much to be regretted. In Scotland, new stations are numerous only in Argyll and Forfar, the most important is probably the Earl of Lovelace's record from Bendamph on Loch Torridon. In Skye, in Orkney, and in Shetland we have lost important stations. In Ireland the chief losses are Glenville, Co. Cork, Carrick-on-Shannon, and two records from Donegal, while we have useful new records from nearly all parts of the country.

As regards county organizations, the most important change is the establishment by the Croydon Microscopic Society of a monthly table for their district upon the model of the Wiltshire one, and edited by Mr. F. C. Bayard with an accuracy and care which leave nothing to be desired. All the others continue as already described, except that, owing to ill-health, the Rev. C. Soames was obliged to give up the care of the Wiltshire table, which has subsequently been edited by Mr. C. E. B. Hewitt.

ENGLAND AND WALES.

MIDDLESEX (50).

ABSENT RECORDS.—Staines, *Record imperfect.*—Twickenham (High Shot House), *No reply.*—Isleworth (Dunster Lodge), 2 gauges, *Record ceased.*—Westminster (Spring Gardens), *2nd g., Record imperfect.*—Stamford Hill (Cazenove Road), *Record ceased.*—Finsbury Park, *Record imperfect.*—Crouch End (Parkside), *Record ceased.*—Winchmore Hill, *Record imperfect.*

INSERTIONS.—Chiswick (Pumping Station), Highgate (Northwood Road).

SURREY (78).

ABSENT RECORDS.—Dorking (Fir Tor), *Record imperfect.*—Dorking (South Street), *Observer dead.*—Chertsey (Burley Orchard), *Record imperfect.*

INSERTIONS.—Nutfield (Holmesdale), Ashtead (D'Abernon Chase), Epsom (Campville), Bagshot (Collingwood), Weybridge (St. George's Lodge), Esher (West End), Wallington (Springfield Road), Wimbledon (Raynes Park), Forest Hill (Border Lodge).

KENT (87).

ABSENT RECORDS.—Charing (Otterden), *No reply.*—Wrotham (The Elms), *Record ceased.*—Canterbury (Old Tree, Hoath), *Observer dead.*—Hayes Common, *Record ceased.*

INSERTIONS.—Edenbridge (Falconhurst), Sittingbourne (Rodmersham), Keston, 2 gauges, Chislehurst (The Chestnuts).

WEST SUSSEX (22).

ABSENT RECORDS.—Worthing (Bedford Row), 2 gauges, *Observer moved.*

INSERTIONS.—Worthing (Heene).

EAST SUSSEX (49).

ABSENT RECORDS.—Eastbourne (Wilmington Square), *Record imperfect.*—Brighton (Kemptown), *Record imperfect.*—Hastings, *Erroneous return.*—Hastings (The Firs, Ore), *Record ceased.*

INSERTIONS.—Lewes (Southmalling), 2nd *g.*, Lewes (Conyborough Park), Hurstpierpoint (Danny Park), Waldron (Heatherden House), Newick (Beechlands).

HAMPSHIRE (67).

ABSENT RECORDS.—Sandown (Belgrave House), *Observer moved.*—Christchurch School, *Record imperfect.*—Southampton (Totton), *Record imperfect.*—Southampton (Red Lodge), *2nd g., Record unreliable.*—Odiham Priory, *No reply.*—Blackwater (Hurstleigh), *Observer dead.*—Strathfieldsaye, *No reply.*—Heckfield (Park Corner), *Record imperfect.*

INSERTIONS.—Sandown (Lake Hill), Wootton (Fern Hill), Havant (Farlington), *2nd g.*, Havant, *2nd g.*, Alton (East Worldham), Basingstoke (Monk Sherborne), Bramley.

BERKS (20).

ABSENT RECORDS.—Long Wittenham Vicarage, *Gauge moved.*—Long Wittenham (Lovegrove's Cottage), *Observer moved.*

INSERTIONS.—Reading (Forbury Gardens).

HERTS (38).

ABSENT RECORDS. — Rickmansworth, *Record ceased.* — Watford (Wansford House), *Observer moved.*—Stevenage (Orchard Court), *Record not received.*

INSERTIONS. — St. Alban's (The Grange), Great Berkhampstead (Rosebank), *2nd g.*, Welwyn (Brocket Hall).

BUCKS (16).

ABSENT RECORDS.—High Wycombe, *Gauge out of order.*—High Wycombe, *Record unreliable.*

INSERTIONS.—Aylesbury (Mentmore), Great Marlow, Great Marlow (Cromwell House).

OXFORD (29).

ABSENT RECORDS.—Bicester (Stratton Audley Park), *Return not received.*—Banbury (High Street), *Gauge moved.*

INSERTIONS.—Abingdon (Culham), Abingdon (Nuneham Park, Oxford (St. Giles's).

NORTHAMPTON (39).

ABSENT RECORDS.—Courteenhall Rectory, *Observer moved.*—Castle Ashby, *Record not received.*—Oundle (Queen Anne's Place), *Record ceased.*

INSERTIONS.—Stoke Bruerne Rectory, Earl's Barton Vicarage.

HUNTS (4).

BEDFORD (19).

ABSENT RECORDS.—Woburn (Experimental Farm), *Record unreliable.*—Ampthill (Lidlington Vicarage), *Record ceased.*—Ampthill (Haynes Vicarage), *No reply.*—Podington, *Record burnt.*

CAMBRIDGE (30).

INSERTION.—Chatteris (Horseway Lock).

ESSEX (32).

ABSENT RECORDS.—Canning Town [London], *Return not received.*—Romford (Normanhurst) *Record imperfect.*—Waltham Abbey (Gunpowder Factory), *Record imperfect.*—Chelmsford (Gt. Baddow Vineyards), *No reply.*—Great Bentley (Wick St. Osyth), *Record imperfect.*—Colchester (Beverley Road), *Record ceased.*

INSERTIONS.—Ingatestone, Colchester, Colchester (Surrey Villa), Dunmow (Saling Grove).

SUFFOLK (31).

ABSENT RECORDS.—Ipswich (Belstead Hall), *2nd g., Gauge leaky.*—Stradbroke Vicarage, *No observations.*—Beccles (Ellough Rectory), *Observer dead.*—Lowestoft (Gisleham), *No observations.*—Lowestoft (Kirkley), *No reply.*

INSERTION.—Clare (Stansfield).

NORFOLK (56).

ABSENT RECORDS.—Saxlingham Nethergate, *Record imperfect.*—Norwich (Postwick), *Record ceased.*—Honingham Hall, *Record ceased.*—Drayton, *Record imperfect.*—Fakenham (Fulmodeston), *Record ceased.*—Wells-next-the-Sea, *Observer dead.*

INSERTIONS.—Wymondham (Hethersett), Costessey, Fakenham (Cranmer Hall), Cromer, Holkham.

WILTS (47).

ABSENT RECORDS.—Pewsey, *Record imperfect.*—Great Bedwyn, *Record unreliable.*—Malmesbury (Charlton Park), *Record imperfect.*

INSERTION.—Marlborough.

DORSET (24).

ABSENT RECORD.—Cerne Abbas (Minterne Rectory), *Observer moved.*

INSERTIONS.—Swanage (The Bank), Corfe Castle (Creech Grange), Wareham (Trigon), Beer Regis (Bloxworth Rectory), Beer Regis (Bloxworth).

DEVON (88).

ABSENT RECORDS.—Dartmouth (Strete), *Observer dead.*—Plymouth (Navigation School), *Observer moved.*—Exeter (The Elms, Wonford), *Observer moved.*—Holsworthy (Clawton), *Observer dead.*—Torrington Vicarage, *No reply.*

INSERTIONS.—Plymouth (Hobart Terrace), Torquay (Strand), Torquay (Grey's Lodge), Ashburton (Widecombe Vicarage), Chudleigh (Ideford), Exeter (Hospital), Hatherleigh (Ash).

CORNWALL (37).

ABSENT RECORD.—Truro (Moresk House), *Record ceased.*

INSERTIONS.—Penzance (Poltair), Redruth (Tehidy Park), St. Austell (Polcarne), St. Germans (Catchfrench).

SOMERSET (44).

ABSENT RECORDS.—Glastonbury (Street, Hind Hayes), *Record ceased.*—Glastonbury (High Street), *Gauge leaky.*—Shepton Mallet, *No observations.*—Wells (Westbury), *Observer moved.*

INSERTIONS.—Wells (Garden), Radstock (Downside), Highbridge (East Brent).

GLOUCESTER (51).

ABSENT RECORD.—Cheltenham (Sandford Mead), *Record imperfect.*

INSERTION.—Dennel Hill [Chepstow].

HEREFORD (24).

ABSENT RECORDS.—Staunton-on-Wye, *Record ceased.*—Wigmore, *Gauge upset.*

INSERTIONS.—Ross (Pontshill), Hereford (Mansion House).

SHROPSHIRE (28).

ABSENT RECORD.—North Cleobury (Burf Cottage), *Record ceased.*

INSERTIONS.—Ludlow (Ashford), Clun (Bettws), Preston Gubbalds.

STAFFORD (31).

ABSENT RECORDS.—Kinver Grammar School [Stourbridge], *Record imperfect.*—Leek (Rudyard), *Record unreliable.*

INSERTIONS.—Cheadle (Oakamoor), Newcastle (Madeley), Alstonfield Vicarage.

WORCESTER (30).

INSERTIONS.—Great Malvern (Davenham Bank), Worcester (Wick Episcopi).

WARWICK (25).

INSERTIONS.—Southam (Stockton), Coventry (Stoke), Birmingham (The Monument).

LEICESTER (24).

ABSENT RECORDS.—Ashby Magna, *Record ceased.*—Fleckney, *No observations.*—Market Bosworth (Osbaston Hall), *No reply.*

INSERTIONS.—Market Harborough (The Hutch), Thurcaston.

RUTLAND (8).

INSERTIONS.—Oakham (Whitwell), Oakham (Ashwell Lodge).

LINCOLN (58).

ABSENT RECORDS.—Skegness, *Record imperfect.*—Spilsby (Partney), *Return not received.*—Market Rasen (Owmby Rectory), *Record ceased.*

INSERTIONS.—Grantham (Little Ponton Rectory), Boston, Horncastle (Hemingby).

NOTTS (32).

ABSENT RECORDS.—Nottingham (The Park), *Observer dead.*—Nottingham (Waterworks Office), *Gauge moved.*—Nottingham (Strelley Hall). *2nd g. Record ceased.*—Newark (East Stoke), *No observations.*

INSERTIONS.—Nottingham (Cromwell Street), Newark (Shelton Rectory), Mansfield (Forest Villa).

DERBY (34).

ABSENT RECORDS.—Derby (Christ Church Vicarage), *Observer moved.*—Chesterfield (Brampton St. Thomas), *Observer moved.*—Hathersage (Bamford), *Record imperfect.*

INSERTIONS.—Derby (All Saints' Works), Belper (Hazelwood Chevin), Norton (Chantrey Grange).

CHESHIRE (62).

ABSENT RECORDS.—Chester (Pulford Hall), *Observer dead.*—Frodsham (Foxhill), *Record lost.*—Disley, *Record ceased.*

INSERTIONS.—Nantwich (Dorfold Hall), Tarporley (Cote Brook), Winsford (Meadow Bank), Macclesfield (Capesthorne), Neston (Hinderton Lodge), Wilmslow (Southside), Thurstaston (Dawpool), Sale (Brooklands), Hadfield (Millbrook), 2 gauges.

LANCASHIRE (150).

ABSENT RECORDS.—Bolton (Moss Bank), *Return not received.*—The Hall [Todmorden], *Record ceased.*—Lytham (Clifton Square), *Record ceased.*—Whalley (Sabden), *Record ceased.*—St. Michael's-on-Wyre, *No.* 1, *Return not received.*—Garstang (Vale House), *No observations.*—Quernmore (Brow Top), *Record imperfect.*—Melling

(Hornby Castle), *Record unreliable.*—Monk Coniston Park, *2nd g. Record ceased.*

INSERTIONS.—Heaton Moor [Stockport], Manchester (York Place) Manchester (Higher Broughton), Ashton (Knott Hill), Oldham (Brushes Clough), Oldham (Brushes Clough), *new g.*, Ormskirk (Aughton Springs), Bolton-le-Moors (The Park), Chorley (Shaw Hill), Over Darwen (Earnsdale Res.), Eccleston (Elswick Lodge), *3rd g.*, Garstang (Calder Mount), *2nd g.*, Wray Vicarage, Arkholme (Storrs Hall), Broughton-in-Furness, Hawkshead (Esthwaite Lodge), Hawkshead (Strickland Ease).

YORK, WEST RIDING (184).

ABSENT RECORDS.—Standedge (Red Brook), *Record imperfect.*—Pontefract (Fern Hill), *Record imperfect.*—Bradford (Thornton Moor Res.), *Record imperfect.*—Bradford (Brown Royd Res.), *Record imperfect.*—Leeds (Elmete Hall, Roundhay), *Gauge moved.*—Leeds (Weetwood Hall), *Record ceased.*—York (Manor House), *No reply.*—Arncliffe (Halton Gill), *Record imperfect.*

INSERTIONS.—Wath-upon-Dearne, Doncaster (Pumping Station), Greenfield (Yeoman Hay), Barnsley, Dobcross, Strinesdale [Oldham], Standedge (Castleshaw), Doncaster (Kirk Bramwith), Doncaster (Owston), Wakefield (Wooley), Halifax (Moorside), South Milford Rectory, Bradford (Queensbury), Leeds (Museum), Shipley (Moor Head), Leeds (Lawns Wood, Adel), Ilkley, Skipton (Sandbed Beck Burnsall), Knaresborough (Farnham), Sedbergh (Wesley Villa).

YORK, EAST RIDING (25).

ABSENT RECORDS.—Hull (Beverley Road), *Record ceased.*—Beverley (Leconfield), *Record imperfect.*

INSERTIONS.—Hedon (The Vicarage), Hunmanby (Foxholes Rectory).

YORK, NORTH RIDING (37).

ABSENT RECORDS.—Thirsk (Reaper Works), *Return not received.*—Scarborough (Westborough), *Observer moved.*—Saltburn (Port Mulgrave), *No observations.*

INSERTIONS.—Bowes, Middlesborough (Albert Park), Redcar (Kirkleatham).

DURHAM (32).

ABSENT RECORDS.—Darlington (Brinkburn), *No observations.*—Tow Law (The Manse), *Record ceased.*

INSERTIONS.—Yarm (Eaglescliffe Rectory), Witton-le-Wear (Witton Lower), Seaham Harbour Cemetery, Sunderland (West Hendon Ho.), 2 gauges; Gateshead (Eighton Cottage).

NORTHUMBERLAND (41).

ABSENT RECORDS.—Newcastle (Gladstone Terrace), *Gauge moved.*—Felton, 2 gauges, *Records imperfect.*

INSERTIONS.—Newcastle (Portland Road), North Shields (Monkseaton), Morpeth (Bothalhaugh Garden), 2*nd g.*, Wooler (Milfield).

CUMBERLAND (72).

ABSENT RECORDS.—St. Bees (Abbot's Court), *Observer dead.*—Whitehaven (Distington), *Record ceased.*—Penrith (Skirsgill Park), *Observer dead.*—Penrith (Edenhall, The Luham), *Record ceased.*—Aspatria (Brayton Hall), *No reply.*

INSERTIONS.—Ravenglass (Irtside, Holm Rook), Braystones, The Stye, *New S.E. gauge*, Borrowdale Vicarage, Buttermere (Hassness), Watendlath, 2*nd g.*, Borrowdale (Grange), Keswick (Newlands), Keswick (Barrow House), Ullswater (Hallsteads), Threlkeld (Settra), Threlkeld (Blencathra), Penrith (Nandana), Penrith (Greystoke), Penrith (Kirkland Vicarage), Hesket Newmarket (Hutton Roof), Kirkoswald (Melmerby), Mealsgate (Uldale Rectory).

WESTMORELAND (35).

INSERTIONS.—Kendal (Underfell), No. 2, Kendal (Ellergreen), Longsleddale, Ambleside (Strawberry Bank), Ambleside (Kirkstone Pass), Shap (Copy Hill), 2*nd g.*, Barton Hall [Penrith].

MONMOUTH (17).

ABSENT RECORD.—Pontypool (Llanthewy Vach Rec.), *Observer dead.*

INSERTIONS.—Blaenavon, Abergavenny (The Chain).

GLAMORGAN (22).

ABSENT RECORDS.—Penarth (Cwrt-y-vil), *No reply.*—Cardiff (New Cemetery), *Record ceased.*—Mountain Ash Waterworks, *No reply.*

INSERTIONS.—Cardiff (New Filters, Heath), Mountain Ash (Maesydderwen).

CARMARTHEN (6).

ABSENT RECORD.—Llandilo (Golden Grove), *No reply.*

INSERTION.—Llanelly (Cwmlliedi W.W.).

PEMBROKE (8).

CARDIGAN (6).

INSERTIONS.—Llechryd (Fernhill), Troedyraur Rectory, Aberayron (Dolaeron), Aberystwith, Aberystwith (Goggerdan).

BRECKNOCK (15).

RADNOR (9).

INSERTION.—New Radnor.

MONTGOMERY (15).

INSERTIONS.—Welshpool (Pool Quay Vicarage), Pont Dolanog, Llansaintffraid.

FLINT (7).

ABSENT RECORD.—Mold (Bryn Alyn), *Observer dead.*

DENBIGH (15).

ABSENT RECORD.—Chirk (Brynkinalt), *Record imperfect.*
INSERTION.—Ruabon (Penycae Reservoir).

MERIONETH (5).

INSERTION.—Bala (Eryl Arran).

CARNARVON (13).

ABSENT RECORD.—Llangybi (Cefn), *Record ceased.*

ANGLESEA (4).

ISLE OF MAN (14).

ABSENT RECORD.—Calf of Man (Chicken's Rock), *Record imperfect.*
INSERTIONS.—Derbyhaven, Douglas (St. Mary's).

ISLES OF SCILLY (2).

JERSEY (2).

GUERNSEY (4).

SCOTLAND.

WIGTON (4).

KIRKCUDBRIGHT (9).

DUMFRIES (9).

ABSENT RECORD.—Byreburnfoot, *Record imperfect.*
INSERTIONS.—Lockerbie (Castlemilk), Langholm.

ROXBURGH (10).

ABSENT RECORD.—Hawick (Wilton Hill), *Record ceased.*
INSERTION.—Wooplaw [Galashiels].

SELKIRK (4).

PEEBLES (7).

BERWICK (6).

HADDINGTON (4).

ABSENT RECORD.—Drem (Craigielaw), *Return not received.*
INSERTION.—North Berwick (Fidra).

EDINBURGH (26).

INSERTIONS.—Moorfoot Hills (Bowbate), Pentland Hills (Crosswood), Pentland Hills (Loganlea), Pentland Hills (Harlaw), Pentland Hills (Harbour Hill).

LINLITHGOW (1).

ABSENT RECORDS.—Whitburn (Polkemmet), *Return not received.* —Bathgate, *Record ceased.*

LANARK (8).

ABSENT RECORD.—Glasgow, *Record imperfect.*

AYR (18).

INSERTIONS.—Dalmellington (Benquhat), Mauchline.

RENFREW (26).

INSERTIONS.—Lochwinnoch (Castle Semple), Paisley (The Coats Observatory).

DUMBARTON (4).

ABSENT RECORD.—Helensburgh (Water Works), *Record imperfect.*

STIRLING (6).

BUTE (4).

ARGYLL, MAINLAND (18).

INSERTIONS.—Lochgilphead (Poltalloch), *2nd g.*, Oban (The Corran), Loch Etive (Ardchattan Priory), Loch Eil (Conaglen).

ARGYLL, INSULAR (20).

ABSENT RECORD.—Sound of Mull, *Record imperfect.*

CLACKMANNAN (4).

ABSENT RECORD.—Dollar (Blairhill), *Record imperfect.*

KINROSS (2).

FIFE (9).

ABSENT RECORDS.—St. Andrews (The Priory), *No reply.*—Cupar (Birkhill), *Return not received.*

PERTH (25).

ABSENT RECORD.—Menteith (Cardross), *Record imperfect.*

FORFAR (18).

INSERTIONS.—Dundee (Camperdown Jute Works), Arbroath, 3 gauges.

KINCARDINE (4).

INSERTION.—Fettercairn (Arnhall).

ABERDEEN (19)

ABSENT RECORDS.—Drumoak (Drum Castle), *Record unreliable.*—Aberdeen (Merlebank), *Record ceased.*

INSERTION.—Aberdeen (Cranford).

BANFF (4).

ELGIN (5).

ABSENT RECORD.—Craigellachie (Wester Elchies Garden), *No reply.*

NAIRN (3).

INSERTION.—Dunearn Lodge [Dava].

WEST ROSS (12).

ABSENT RECORD.—Isle of Lewis (Stornoway), *Record imperfect.*

INSERTION.—Loch Torridon (Bendamph),

EAST ROSS (5).

ABSENT RECORDS.—Cromarty, *Record unreliable.*—Fearn (Arboll), *Record imperfect.*—Edderton, *Observer dead.*—Tain (Springfield). *Record ceased.*

INSERTION.—Dingwall H.R.S.

WEST INVERNESS (13).

ABSENT RECORDS.—Moidart (Kinloch Moidart), *Return not received* —Isle of Skye (Armadale Castle), *No reply.*—Isle of Skye (Broadford), *No reply.*—South Uist (Ardkenneth), *Record imperfect.*

EAST INVERNESS (8).

ABSENT RECORDS.—Kingussie (School House), *No reply.*—Glen Strathfarrar, *Record ceased.*

INSERTION.—Inverness (High School).

SUTHERLAND (10).

CAITHNESS (7).

ORKNEY (8).

ABSENT RECORD.—Pomona (Kirkwall), *Record imperfect.*

SHETLAND (3).

ABSENT RECORD.—Lerwick (Montfield), *No reply.*

IRELAND.

CORK (7).

ABSENT RECORDS.—Cork (Sunday's Well Road), 2 gauges, *Observer moved.*—Glenville, *Record ceased.*

INSERTIONS.—Cork (Clarence Place), Fermoy (Gas Works).

KERRY (8).

ABSENT RECORDS.—Dingle, *Record imperfect.*—Tralee (Castlemorris), *Observer dead.*

INSERTIONS.—Kenmare (Inishfea), Mangerton.

WATERFORD (8).

INSERTIONS.—Cappoquin House, Waterford (Gas Works).

TIPPERARY (7).

INSERTION.—Fethard (Mobarnane).

LIMERICK (5).

INSERTIONS.—Rathkeale, Foynes.

CLARE (6).

INSERTION.—Ennis (Roslevan).

WEXFORD (5).

INSERTION.—Wexford (Alma).

KILKENNY (5).

WICKLOW (1).

ABSENT RECORD.—Enniskerry (Parknasilloge), *Gauge overflowed.*

CARLOW (2).

INSERTION.—Bagnalstown (Fenagh House).

QUEEN'S COUNTY (1).

KING'S COUNTY (2).

KILDARE (1).

DUBLIN (10).

MEATH (4).

WESTMEATH (2).

LOUTH (6).

ABSENT RECORD.—Ravensdale Park, *Observer dead.*

INSERTIONS.—Ravensdale (Anaverna), Ravensdale School.

LONGFORD (1).

GALWAY (9).

INSERTION.—Woodlawn.

MAYO (5).

SLIGO (4).

ABSENT RECORD.—Collooney (Markree Observatory), *3rd g.*, *Record ceased.*

LEITRIM (1).

ABSENT RECORD.—Carrick-on-Shannon, *Record ceased.*

CAVAN (1).

FERMANAGH (2).

MONAGHAN (1).

ARMAGH (3).

ABSENT RECORD.—Flurrybridge, *Observer dead.*

DOWN (12).

ABSENT RECORDS.—Kilkeel, *Record ceased.*—Newtownards, *Record ceased.*

ANTRIM (17).

ABSENT RECORD.—Belfast (Glenbank), *Record unreliable.*

INSERTIONS.—Stonyford (Belfast W. W.), *2nd g.*, Carrickfergus (South Woodburn), Carrickfergus (Copeland), Carrickfergus (Lough Mourne).

LONDONDERRY (9).

ABSENT RECORD.—Coleraine, *Record imperfect.*

INSERTION.—Londonderry (Clooney Terrace)

TYRONE (6).

ABSENT RECORDS.—Auchnacloy, *Record imperfect.*—Dungannon (Rockdale), 2*nd g.*, *Record imperfect.*

INSERTION.—Moy (Derrygally), 2*nd g.*

DONEGAL (7).

ABSENT RECORDS.—Ramelton (Killygarvan), *Record imperfect.*—Moville Rectory, *Record imperfect.*

INSERTION.—Killybegs.

OBITUARY.

WE have again a long list of losses, slightly longer than even in 1886—for t here are 52, including men of high scientific standing, such as Baxe ndell, De Chaumont, and Balfour Stewart, and members of both Houses of Parliament, *e.g.*, Lords Clermont and Northwick, and Messrs. Robertson and Schneider.

Two of the observers had made observations more than half a century ago. One of them, Lady Bayning, but for her early records being broken up by being partly in town and partly in the country, and for an interruption prior to 1848, would have had a continuous record of more than 50 years instead of the 39 which stands against her name. Mr. Colin Campbell's Argyllshire record of 48 years (with unhappily one year imperfect) is the longest in the list, and then we may also note the records kept by the Rev. R. B. Cooke which jointly cover 42 years.

Of original contributors to *English Rainfall* 1860 we have lost only two—Mr. W. H. Richards of Penzance and Prof. Balfour Stewart—these, as usual, being marked with the *.

Rainfall work to be efficient requires two things—(1) good observations, (2) money to pay for working them up. This obituary tells year by year the story of our losses in the first respect; it would not be in good taste to give analogous details as to the financial loss, but there can be no harm in stating its aggregate, which this year reaches the large sum of £26 19s. 6d.—and of course this is not merely a loss for this year, but annually for all time to come.

OBSERVERS DECEASED TO JULY, 1888.	PERIOD OF OBSERVATION. DATE.	Perfect Yearly Records
Appach, R., Esq., Swattenden, Cranbrook	C 1875 imp-87	12
Balfour, Col., Balfour Castle, Kirkwall, N.B.....	C 1856-87 C	32
Baxendell, J., Esq., F.R.S., Hesketh Park, Southport	C 1872-87 C	16
Bayning, The Lady, London	C 1836-42 all imp ...	
Bayning, The Lady, Ramsey, Huntingdon	C 1836-42 all imp ...	
Bayning, The Lady, Honingham, Norfolk	C 1848-87 imp T	39
Buddicom, W. B., Esq., Penbeddw, Nannerch	1879-87	9
Byron, Rev. J., Killingholme, Ulceby, Lincoln	C 1866-86 imp T	20
Cadogan, C. H., Esq., Brenckburn Priory, Morpeth	C 1864-87	24
Campbell, C.G., Esq. Stonefield, Tarbert, Cantire, N.B.	C 1839-69 imp-87 ...	48

OBSERVERS DECEASED TO JULY, 1888.	PERIOD OF OBSERVATION. DATE.	Perfect Yearly Records.
Cattley, W. E., Esq., Edderton, Ross, N.B.	1882–86	5
De Chaumont, Prof. F., F.R.S., Netley, Southampton	1882–87	6
Clermont, The Rt. Hon. Lord { Flurrybridge, Armagh. / Ravensdale Pk., Newry	1876–86 T	11
	1871–86 T	16
Coles, W. C., Esq., M.D., Bourton-on-the-Water	C 1880–87	7
Cooke, Rev. R. B. { Wheldrake, York / Bryn Alyn, Mold, Flintshire	C 1844–65 T	22
	C 1866 imp –87 imp T	20
Earnshaw-Wall, Rev. S. W., Ellough, Beccles	1880–87 imp T	7
Evans, Mrs., St. Catherine's Close, Norwich	C 1865–87	23
Fielder, H., Esq., South Street, Dorking	1884–86 T	3
Gandy, Capt., Skirsgill Park, Penrith	C 1883 imp–87 imp	3
Grant, J., Esq., C.E., Blessington Road, Lee	C 1865 imp –87	22
Greenfield, J. Esq. { Hollacombe, Paignton, Devon / Rosenville ,, ,,	C 1873–85 imp T	12
	C 1885 imp –87	2
Hack, T., Esq., C. E. { Kidderpore, Res., Hampstd. / Campden Hill, Kensington.	1880–87	8
	1882 imp –87	5
Harrison, C., Esq., Areley Court, Stourport	C 1881 imp –87	6
Harvey, H. M., Esq., Hexworthy, Launceston	C 1865 imp –68 imp T C 69–87	21
Hodgetts, A., Esq., Abbot's Court, St. Bees, Carnforth	1874–86 T	13
Holland, Rev. E. W., Dunsfold Rectory, Godalming	1872 T	1
Jenyns, Rev. F. G., Knebworth Rectory, Stevenage.	C 1876–87	12
Keary, H. W., Esq., Aldenham Park, Bridgnorth	C 1884 imp–87	3
McCormack, Mr. J. Braemar Place, Aberdeen	1881–87	7
Machem, Rev. J.E.J., Llanthewy Vach, Newport, Mon.	1878–86	9
Madden, Dr. { Hatherleigh, Jacobstow / Strete, Dartmouth, Devon	C 1870–73 T	4
	C 1875–86	12
Melhuish, W. W., Esq., Clawton, Holsworthy	C 1866T C1870–87impT	18
Neame, E., Esq., Harefield, Selling, Faversham	C 1866 imp –87	11
North, A., Esq., Salcombe Hill Ho., Sidmth., Devn.	C 61–66T	5
Northwick, Rt. Hon. Lord { Burford, Tenbury / Northwick Park, Moreton	C 1847–81 83–85 T	38
	C 1859 imp –87 C	27
O'Grady, Rev. T., Hognaston Vicarage, Derby	C 1885 imp T	—
Perrins, J. D., Esq., Davenham Bank, Malvern	C 1887	1
Pinder, Rev. H. S., Bratton Fleming, Barnstaple	C1865–67TC69imp–74T	8
Pratt, Rev. E. O'Brien, Kilkeel, Co. Down	C 1875 imp –87 imp T.	11
*Richards, W. H., Esq., South Parade, Penzance	C 1859–87 T	29
Robertson, H., Esq., C.E., M.P., Palè, Corwen	C 1873 imp –87	14
Roper, W., Esq., South Road, Lancaster	C 1861–87 C	27
Rump, H. R., Esq., Wells-next-the-Sea, Norfolk	C 1866–76 imp 77–86	20
Schneider, H. W., Esq., Belsfield, Bowness	C 1871–73	3
Sherwin, W., Esq., Farnborough Grange, Hants	C 1877–87 C	11
Smith, Rev. U., Stony Middleton, Derbyshire	C 1865 imp –87 C	22
Spedding, H. A., Esq., Mirehouse, Bassenthwaite, Keswick	C 1864–87 C	24
Stainforth, Rev. T., Bolton by Bolland, Clitheroe	1834	1
*Stewart, Prof. Balfour, F.R.S., Kew Obs., Surrey	1860–70 C	11
Stokes, H., Esq. { Springfield, Tiverton / Queen's Parade, Bath	1863 imp –75	12
	1878–87 T	10
Taafe, Dr. R. P. B., Brighton	1875 –83 imp –87	12
Tucker, H., Esq., Uplyme, Lyme Regis	C 1876 imp –84 imp T	7
Westley, E. P., Esq., Spring Hill Nailsworth	C 1868–85 T	18
Weston, Rev. G. F., Crosby Ravensworth, Shap	C 1868 imp –78	10

RAINFALL AND METEOROLOGY

OF

1887.

SYMBOLS EMPLOYED.

H.R.S. . . Highland Railway Station.
H. . . . Hail.
L. . . . Lightning.
R. . . . Rain or Rainfall.
S. . . . Snow.
T. . . . Thunder.
TS. . . . Thunderstorm.
TSS. . . Thunderstorms.

ON THE METEOROLOGY OF 1887,

WITH NOTES OF SOME OF THE PRINCIPAL PHENOMENA.

[These Notes should be read in conjunction with those on Heavy Rains in 1887].

JANUARY.

1st.—*Lansdowne Crescent, W.* (I). Intense frost, temp. did not rise to 24°.—*Dorking, Abinger* (II). Severe frost; min. temp. 3°.—*Reigate, Holmfels* (II). Thick fog.—*Keston Tower.* Fog.—*Rendlesham* (IV). S at night, sharp frost.—*Burton, Derby Road* (VI). Thick fog all day.—*Llanfrechfa Grange* (XI). Dense fog.

1st and 2nd.—*Reading, Portland Place* (II). Very severe frost.—*Ross* (VI). Dense fog, with extraordinary rime on trees.

2nd.—*Ashburton, Druid* (V). Fog in valleys.

2nd and 3rd.—*Forsinard H.R.S.* (XIX). Sleet and S.

2nd to 4th.—*Broughton-in-Furness* (VIII). S daily.

2nd to 5th.—*Epping, The Hemnalls* (IV). S daily.—*Abergavenny, Dyne House* (XI). S.

2nd to 7th.—*Scarborough* (IX). S daily.

2nd to 8th.—*Stotfold* [*Baldock*]. (III). S daily.—*Burton, Hoar Cross* (VI). S daily, except 6th.—*Macclesfield* (VIII). S daily, except on 6th; S storm from 3 p.m. to 6 p.m. on 8th.—*Selkirk, The Hangingshaw* (XIII). S daily.

2nd to 9th.—*Broxbourne* (III). S daily except on 7th, when R fell.—*Horncastle, Hemingby* (VII). S daily, except 6th.

2nd to 10th.—*Cirencester, Further Barton* (VI). S daily.

3rd.—*Finchley, Etchingham Park* (I). About 4 in. of S at night.—*Pinner Hill* (I). S 7 in. deep, and R yielding 1·34 in.—*Dorking, Abinger.* Six inches of S.—*Wallington* (II). Five inches of S.—*Canterbury, Harbledown* (II). S.W. gale at night.—*Petworth Rectory.* (II). Heavy S, yielding 1·35 in.—*Burgess Hill, Prescott* (II). R, followed by S during the night, and until noon on the 4th.—*Maidenhead, Lowood* (II). Heavy S storm and R, 1·54 in.—*Oxford, Elsfield* (III). Heavy R and S, 1·22 in.—*Stanton St. John's, Woodperry.* Heavy R and S, 1·53 in.—*Weybread Vic.* [*Harleston*] (IV). Heavy fall of S.—*Diss*

(IV). Much S and R; heavy E. gale at night.—*Torquay, Babbacombe* (V). Parhelia; heavy S.S.W. gale.—*Crewkerne, Bincombe Ho.* (V). Hard gale, with heavy R.—*Burton, Derby Road.* Gale from S, with heavy R.—*Shap* (X). S storm at 3 p.m.—*New Galloway, Glenlee* (XII). Heavy R, S and sleet (1·03 in.), and T; S lying 6½ in. deep on the morning of 4th.—*Watten H.R.S.* (XIX). S.E. gale.—*Ramelton, Killygarvan* (XXIII). S gale.—*Buncrana, Rockfort* (XXIII). H squalls.

3rd and 4th.—*Ealing, Local Board Office* (I). S.—*Wrotham, The Elms* (II). S.—*Hastings, High Beech, Hollington* (II). S.—*Cambridge, Fulbourn* (III). S.—*Woodford, The Harts* (IV). S.—*Mansfield* (VII). Severe S storms.

3rd to 5th.—*Thornley Vic.* (X). S.—*Derrycastle* [*Killaloe*] (XX.) S.

3rd to 7th.—*Buckingham, Adstock* (III). S daily.—*Bushmills, Dundarave* (XXIII). S daily, except on 6th.

3rd to 9th.—*Alconbury* (III). S daily, except on 6th.—*Sandy, The Lodge* (III). S daily.

3rd to 10th.—*Barnard Castle, Whorlton* (X). S daily.

4th.—*Lansdowne Crescent, W.* (I). S 3½ in. deep.—*Keston Tower* (II). S storm.—*Littlehampton.* Very strong S. gale.—*Burton, Derby Road.* Heavy fall of S.—*Ketton Hall* [*Stamford*] (VII). Snowing all day.—*Derby, Elvaston* (VII). Heavy S storm.—*Llandovery* (XI). S and H.—*Douglas, Victoria Road* (XI). Gale, with R and S.—*Colmonell* (XIV). S 2 in. deep.—*Balquhidder, Stronvar* (XVI). Three inches of S.

4th to 7th.—*Crickhowell, Gwernvale* (XI). S.

4th to 8th.—*Canterbury, Harbledown.* Slight S daily.—*Ross* (VI). S daily: 7 in. deep on 8th.—*Builth, Llanwrtyd Wells* (XI). S daily.—*Melrose* (XII). S daily.

4th to 9th.—*Coventry, Coundon* (VI). S daily; 18 in. deep on 9th.—*Keswick, Borrowdale Vic.* (X). S daily.

5th.—*Diss.* Heavy S all day.—*Ashburton, Druid.* H, S and R; hills white.—*Bath, Queen's Parade* (V). S, which lay till 12th.—*Patshull Gardens* (VI). Four inches of S.—*Melton Mowbray, Coston* (VII). Heavy S early.—*Nottingham, Beeston Fields* (VII). Four inches of S.—*Dumfries, Crichton Institution* (XII). S 3 in. deep.—*Loch Shiel, Glenaladale* (XVIII). S 5½ in. deep.—*Watten H.R.S.* S, sleet and R.—*Broadford, Hurdlestown* (XX). S.—*Londonderry, Knockan* (XXIII). Heavy S.

5th and 6th.—*Glasgow, Queen's Park* (XIV). S and sleet.—*Miltown Malbay* (XX). Stormy, with H and R.

5th to 18th.—*Melrose Asylum* (XII). Very keen frost.

6th.—*East Linton* (XIII). Three inches of S.—*Stronvar* (XVI). An

inch and a half of S.—*Tralee, Castlemorris* (XX). N.W. gale at night. —*Kilkeel* (XXIII). S.

6th and 7th.—*Forsinard H.R.S.* (XIX). Sleet and S.

6th to 8th.—*Penzance, St. Clare* (V). H, sleet and S.

7th.—*Reigate, Holmfels* (II). Thick fog.—*Diss.* Fog and S.—*Ashburton, Druid.* H, S and R.—*Axbridge, Winscombe* (V). Heavy S.—*Burton, Derby Road.* S 9½ in. deep.—*Coventry, Priory Row* (VI). The heaviest fall of S remembered commenced about 4.30 p.m.; the atmosphere was still, so that it did not drift, and at 8 a.m. on 8th showed its full depth, about 13 in.—*Melton Mowbray, Coston* (VII). Heavy S and R at night.—*Mansfield.* Severe S storm.—*Shirenewton Hall* (XI). S storm, with enormous flakes more than 4 in. in length. Some flakes yielded 15 or 16 drops of water, and the water from 7 flakes weighed within 2 grains of ¼ oz.—*Llanfrechfa Grange* (XI). R, S and sleet.—*Forres H.R.S.* (XVII). H and sleet.

7th and 8th.—*Elvaston* (VII). Great S storm from N.E., average depth 1 foot.—*Loweswater, Waterend* (X). S.

7th to 9th.—*Patshull Gardens.* Eight inches and a half of S.

8th.—*Nottingham, Beeston Fields.* Eight inches of S; mean temp. for the week 29°·6.—*East Layton* [*Darlington*] (IX). Heavy S.—*Shap* (X). R, H, S and sleet.—*Corwen, Rhug* (XI). Much S.

9th.—*Northampton, Sedgebrook* (III). Heavy fall of S.—*Scarborough* (IX). H and R.—*Llandovery* (XI). Fog.—*Melrose* (XII). Fog.

10th.—*Great Berkhampstead* (III). Dense fog after 5 p.m.; 9 in. of S on ground.—*Babbacombe.* Solar halo, parhelion and lunar halo.—*Douglas, Victoria Road.* S.E. gale, with heavy R at night.—*Watten H.R.S.* S.E. gale.

10th and 11th.—*Shap.* A gale and heavy R.

11th.—*Diss.* High wind from S.S.E.; H and R.—*Babbacombe.* Fog; gale from S.—*Ashburton, Druid.* Fog and gale all day.—*Horncastle, Hemingby* (VII). S and R, with high wind.—*Troutbeck* (X). Very stormy; R, 1·41 in.—*Edinburgh, Blacket Place* (XIII). Strong gale from S.E.—*Forsinard, H.R.S.* S.—*Derrycastle* [*Killaloe*]. S.—*Miltown Malbay.* H.—*Navan, Balrath* (XXII). Heavy R and S, 1·13 in.

12th.—*Littlehampton.* Dense fog.—*Banbury, Bloxham Grove* (III). Dense fog.—*Worcester, Diglis Lock* (VI). Fog.—*Watten H.R.S.* S. gale.

12th and 13th.—*Buncrana, Rockfort.* S.E. gale.

13th.—*Dorking, Abinger* (II). Very foggy all day.—*Ketton Hall* [*Stamford*]. Thick fog.—*Llanfrechfa Grange* (XI). Fog all day.—*Forsinard H.R.S.* S.

13th and 14th.—*Reigate, Holmfels.* Thick fog.

14th.—*Cross Fell, Kirkland Vicarage* (X). Dense fog.—*Shap.* Heavy fog.—*Forres H.R.S.* (XVII). Aurora.—*Miltown Malbay.* Aurora.

15th to 17th.—*Broxbourne* (III). S daily.

17th.—*Ealing, Local Board Office.* S.—*Hastings, High Beech, Hollington* (II). S.—*Alconbury* (III). S.—*Sandy, The Lodge.* S.—*Epping, The Hemnalls.* S.—*Burton, Hoar Cross.* S.—*Horncastle, Hemingby.* S.—*Mansfield* (VII). Severe S storm.—*Melbourne* (VII). S.—*Broughtonin-Furness.* S and R, ·98 in.—*Halifax, Thorpe* (IX). Very severe frost.—*East Layton* [*Darlington*] (IX). Intense cold with sleet; gale at night.—*Keswick, Borrowdale Vicarage.* Very strong cold wind, with blinding S in afternoon.—*New Galloway, Glenlee* (XII). S, sleet and R.—*Dumfries, Crichton Institution* (XII). S 2½ in. deep.—*Ballantrae, Glendrishaig* (XIV). S, sleet and R, 1·23 in.; very stormy.—*Stronvar.* Six inches of S.—*Watten H.R.S.* S.E. gale, with S.

17th to 22nd.—*Burton, Derby Road.* Trent in high flood owing to the rapid thawing of S, which had been accumulating since the 4th. The water reached its highest point on the afternoon of the 20th, when it just entered the town.

18th.—*Dorking, Abinger.* Dense fog all day.—*Reigate, Holmfels.* Thick fog.—*Melton Mowbray, Coston.* Thick fog at night.—*Ketton Hall* [*Stamford*]. Fog dense in afternoon.—*Melrose.* Gale in evening; Tweed in flood.

19th.—*Banbury, Bloxham Grove* (III). Thaw followed by great flood in the meadows on 20th.—*Shap.* Strong gale, with heavy R, 1·09 in.—*Melrose.* Gale lasting 12 hours.—*Dalnaspidal* (XVI). High wind, R and S, 1·05 in.

20th.—*Weybread Vic.* (IV). River Waveney in high flood, the first and only flood of the year.—*Salisbury, Alderbury* (V). S disappeared after lying 25 days.—*Elvaston* (VII). Great flood caused by the river Derwent overflowing, owing to rapid thaw.

21st.—*Dorking, Abinger.* Very foggy morning.—*Ashburton, Druid.* Heavy fog in valley.—*Nottingham, Beeston Fields* (VII). Floods out.—*Melrose.* Gale lasting 12 hours.

23rd.—*Broadford, Hurdlestown.* High wind at night.

25th.—*Littlehampton.* Dense fog.—*Rendlesham.* Foggy morning.—*Broadford, Hurdlestown.* High S.W. wind, with mist.

25th and 26th.—*Melrose.* Continuous gale.

26th.—*Shap.* Dense fog.—*Broadford, Hurdlestown.* High wind at night.

27th.—*Banbury, Bloxham Grove.* Dense fog all day.—*Rendlesham.* Thick wet fog all day.—*Diss.* Fog all day.—*Babbacombe.* Solar halo and parhelion.—*Ketton Hall* [*Stamford*]. Thick fog in morning.

27th to 30th.—*Reigate, Holmfels.* Dense fog daily.

28th.—*New Galloway, Glenlee.* L at 6.30 a.m.—*Melrose.* L in morning; gale later, renewed on 29th.—*Stronvar.* Gale.

28th and 29th.—*Shap.* Severe and continuous gale.—*Drumnadrochit* (XVIII). Strong S.S.W. gale.

28th to 30th.—*Babbacombe.* Fog.—*Ashburton, Druid.* Dense fog.

29th.—*Dorking, Abinger.* Damp fog.—*Llanfrechfa Grange.* Dense fog.

30th.—*Dorking, Abinger.* Very foggy morning.—*Rendlesham.* Foggy morning.

31st.—*Keswick, Borrowdale Vicarage.* R, 1·59 in., after 3 p.m. with strong wind.—*Shap.* Strong gale all day, with heavy R, 1·48 in.—*Corwen, Rhug* (XI). R and S, 1·06 in.—*Melrose.* Gale lasting 12 hours.—*Forsinard H.R.S.* S.—*Broadford, Hurdlestown.* R nearly all day and night.

FEBRUARY.

1st.—*Torquay, Babbacombe* (V). Parhelia.—*Wem, Clive Vicarage* (VI). S early.—*Coventry, Coundon* (VI). Storm of H, R and S between 8 a.m. and 9 a.m.—*Melton Mowbray, Coston* (VII). Heavy S and sleet.—*Balquhidder, Stronvar* (XVI). S.—*Cawdor* [*Nairn*] (XVIII). S.—*Watten H.R.S.* (XIX). S.—*Ballinamore, Lawderdale* (XXII). S.W. gale.

1st and 2nd.—*Cheadle, The Heath House* (VI). S.—*New Galloway, Glenlee* (XII). S.

1st to 5th.—*Dalnaspidal H.R.S.* (XVI). S daily.

2nd.—*Emsworth, Redlands* (II). S.W. to S.E. gale.—*Diss* (IV). Strong S. gale at mid-day.—*Babbacombe.* S. to W. gale.—*Miltown Malbay* (XX). Strong S.W. storm.—*Galway, Queen's College* (XXII). Strong gale at night, with T and L.

2nd and 3rd.—*Forsinard H.R.S.* (XIX.) S.

3rd.—*Lansdowne Crescent, W.* (I.) S.W. gale.—*Diss.* Strong gale at mid-day; blowing in evening from S.E.—*Babbacombe.* S.W. gale.—*Ross, The Graig* (VI). Gale at night.—*Shap* (X). Severe gale all day.—*Melrose* (XII). Severe S.W. gales.—*North Esk Reservoir* [*Penicuick*] (XIII). Severe hurricane, thermometer stand blown down, at 11.45 a.m.—*Dollar* (XVI). Very high wind.—*Stronvar* (XVI). T, L

and R.—*Watten H.R.S.* H.—*Buncrana, Rockfort* (XXIII). Severe squall, with H, T and L.

3rd and 4th.—*New Galloway, Glenlee.* L.

4th.—*Ballinamore, Lawderdale.* S.W. gale.

4th to 6th.—*Cross Fell, Kirkland* (X). S daily.

5th.—*Banbury, Bloxham Grove* (III). Fine solar halo with parhelia. —*Calne, Compton Bassett* (V). Dense fog.—*Babbacombe.* Solar halo and parhelia.—*Scarborough.* (IX). Solar halo.—*Forres H.R.S.* (XVII). S and sleet.—*Cawdor* [*Nairn*]. S.

6th.—*Miltown Malbay.* S. gale.

7th.—*Diss.* Much fog in morning.—*Ketton Hall* [*Stamford*] (VII). Fog.—*Welbeck* (VII). Thick fog all day.—*Wakefield, Stanley Vicarage* (IX). Fog all day.—*Barnard Castle, Whorlton* (X). Fog.—*Dumfries, Crichton Institution* (XII). Fog.

8th.—*Halifax, Thorpe* (IX). Pressure 30·418 in., the highest for four years. *Kirkland.* Driving S.—*Dalnaspidal H.R.S.* Fog.

10th.—*Babbacombe.* N.E. gale.

10th and 11th.—*Hastings, High Beech, Hollington* (II). S.

11th.—*Littlehampton* (II). S.—*Babbacombe.* E. gale.

12th.—*Newcastle West* (XX). Aurora from 8.30 to 10 p.m.

13th.—*Babbacombe.* E.N.E. gale.—*Shap.* Heavy fog all day.

14th.—*Ross, The Graig.* Damp wet fog.—*Ketton Hall* [*Stamford*]. Fog.—*Kirkland.* Dense fog.—*Dalnaspidal H.R.S.* Sleet and S.

15th.—*Dumfries, Crichton Institution.* Fog.

16th.—*Ashburton, Druid* (V). Fog in valley.

17th.—*Dorking, Abinger* (II). Very foggy morning.—*Keston Tower* (II). Fog.—*Derrycastle* [*Killaloe*] (XX). Fog.

17th and 18th.—*Dalnaspidal H.R.S.* Fog.

17th to 19th.—*Reigate, Holmfels* (II). Thick fog.

18th.—*Diss.* Fog in afternoon and evening.—*Babbacombe.* Fog.—*Kirkland.* S.—*Llanfrechfa Grange* (XI). Thick fog.

19th.—*Dorking, Abinger.* Foggy all day.

20th.—*Dalnaspidal H.R.S.* S.

22nd and 23rd.—*Clifden, Kylemore* (XXII). Very stormy and wet.

22nd to 24th.—*Shap.* Gales and heavy R, 2·66 in.—*Stronvar.* High wind and heavy R, 4·46 in. in three days.

23rd.—*Diss.* S.W. gale at mid-day.—*Broadford, Hurdlestown* (XX). S.W. gale at night.

23rd and 24th.—*Melrose.* S.W. gales.

24th.—*Babbacombe.* S.S.W. gale.

25th.—*Great Berkhampstead* (III). High W.N.W. wind.—*Babbacombe.* Parhelia.—*Ashburton, Druid.* H.—*Melmerby* (X). Heavy H shower.—*Dumfries, Crichton Institution.* H.—*Glasgow, Queen's Park* (XIV). H.—*Broadford, Hurdlestown.* S.W. gale at night.

25th and 26th.—*Miltown Malbay.* Very heavy S.W. gale.

26th.—*Reigate, Holmfels.* Thick fog.—*Ashburton, Druid.* Fog in valley.

27th.—*Diss.* Heavy fog in morning.—*Ashburton, Druid.* Thick fog in valley.—*Ross, The Graig.* Fog low on hills.—*Shap.* Heavy fog.

MARCH.

1st.—*Littlehampton* (II). Fog.—*Oxford* (III). Fog.—*Torquay, Babbacombe* (V). Fog.—*Ross, The Graig* (VI). Thick fog.

1st to 5th.—*Dorking, Abinger* (II). Foggy mornings.—*Reigate Holmfels* (II). Thick fog daily.

2nd to 4th.—*Wallington* (II). Fog each morning.

2nd to 5th.—*Worcester, Diglis Lock* (VI). Fog daily.—*Ketton Hall* [*Stamford*] (VII). Fog; dense on 4th and 5th.

3rd and 4th.—*Littlehampton.* Fog.—*Emsworth, Redlands* (II). Fog.—*Rendlesham Hall* (IV). Thick fog.—*Diss* (IV). Fog all day.—*Temple Combe, Stowell* (V). Fog.

3rd to 5th.—*Ashburton, Druid* (V). Thick fog.

3rd to 6th.—*Banbury, Bloxham* (III). Fog daily.—*Babbacombe.* Fog daily.

4th.—*Great Berkhampstead* (III). Dense fog early.—*Oxford.* Very foggy.—*Horncastle, Hemingby* (VII). Dense wet fog.—*Broadford, Hurdlestown* (XX). Fog.

4th and 5th.—*Cheltenham* (VI). Fog.—*Ross, The Graig.* Dense fog.—*Welbeck* (VII). Thick fog.

5th.—*Great Berkhampstead* (III). Dense fog early.

6th.—*Melrose* (XII). Heavy fog.

8th to 10th.—*Aviemore H.R.S.* (XVIII). Nine inches of S.

9th.—*Weybridge, St. George's Lodge* (II). No R from February 23rd, but much fog. Small whirlwind near Dover [see *Met. Mag.* vol. XXII. p. 22].—*Shap* (X). Heavy fog all day.

9th and 10th.—*Loch Shiel, Glenaladale* (XVIII). Severe S storm, with much drift.

9th to 11th.—*Balquhidder, Stronvar* (XVI). Nearly 8 in. of S.

10th.—*Gorebridge, Middleton* (XIII). Three inches of S.—*Edin-*

burgh, Blacket Place (XIII). S all day, yielding ·53 in.—*Drumnadrochit* (XVIII). Severe S storm.

10th and 11th.—*Selkirk, The Hangingshaw* (XIII). Snowing all day.

10th to 16th.—*Scarborough* (IX). S daily.

11th.—*Littlehampton.* S.—*Weybread Vic.* Heavy fall of S.—*Diss.* Heavy S storm.—*Ashburton, Druid.* Thick fog in valleys; ice on ponds.—*Burton, Derby Road* (VI). Heavy fall of S.—*Mansfield* (VII). Heavy S storm.—*East Layton* [*Darlington*] (IX). Heavy S.—*Shap.* Nearly 6 in. of S at night.—*Corwen, Rhug* (XI). S at night.—*New Galloway, Glenlee* (XII). S fell from 10.30 a.m. to 5 p.m.—*Gorebridge, Middleton.* Six inches of S on the ground.—*Glasgow, Queen's Park* (XIV). From 4 to 6 in. of S.—*Broadford, Hurdlestown* (XX). S at night.—*Ballinamore, Lawderdale* (XXII). S.

11th and 12th.—*Oxford.* S.—*Horncastle, Hemingby.* S.—*Baldersby* (IX). S.

11th to 13th.—*Melbourne* (VII). S.

11th to 14th.—*Crossmolina, Enniscoe* (XXII). S daily.

11th to 15th.—*Ketton Hall* [*Stamford*]. S daily.

12th.—*Dorking, Abinger.* S storms.—*Hastings, High Beech, Hollington* (II). S.—*Great Berkhampstead.* S.—*Banbury, Bloxham* (III). S.—*Stotfold* [*Baldock*] (III). S.—*Babbacombe.* E.N.E. gale.—*Bath, Queen's Parade* (V). S.—*Melton Mowbray, Coston* (VII). S storm.—*Nottingham, Beeston Fields* (VII). Two inches of S.—*Welbeck* (VII). Two and-a-half inches of S at night.—*Elvaston* (VII). Heavy snowstorm.—*Barnard Castle, Whorlton* (X). Heavy S all day.—*Castle Malgwyn* [*Llechryd*] (XI). S and sleet.—*Carno, Tybrith* (XI). S.

12th to 13th.—*Diss.* Frequent S showers.

13th.—*Penzance, St. Clare* (V). S.—*Nenagh, Castle Lough* (XX). Min. temp. 21°, a point only once before reached during the winter—viz., in December.

13th and 14th.—*Ballinamore, Lawderdale.* S.

14th.—*Kensington, Campden Hill, W.* (I). Two inches of S.—*Canterbury, Harbledown* (II). S falling more or less all day; 2½ in. deep on 15th.—*Great Berkhampstead.* Severe frost.—*Banbury, Bloxham.* S storm.—*Crewkerne, Bincombe House* (V). S all day and night.—*Ross, The Graig.* S storm at 11 a.m. S 5 in. deep and still falling at 9 a.m. on 15th.—*Worcester, Diglis Lock.* S.—*Llanfrechfa Grange* (XI). S 14 in. deep at 9 a.m.—*Chepstow, Piercefield Park* (XI). S about 15 in. deep.

—*Abergavenny, Dyne House* (XI). Heavy S, 11 in. deep.—*Llandovery* (XI). Heavy S.—*Llechryd, Fern Hill* (XI). S about 6 in. deep on high ground, but none in the valley.—*Crickhowell, Gwernvale* (XI). Heavy S.—*Builth, Llanwyrtyd Wells* (XI). Heavy S.—*Rhayader, Nantgwilt* (XI). S.—*Corwen, Rhug.* S.—*Colmonell* (XIV). S 1 in. deep.—*Clifden, Kylemore* (XXII). S.

14th and 15th.—*Ealing, Local Board Office* (I). S.—*Stotfold* [*Baldock*]. S.—*West Buckland, Devon County School* (V). S.—*Bath, Queen's Parade.* S.—*Bristol, Shirehampton* (VI). Eighteen inches of S.—*Cheltenham* (VI). S.—*Shirenewton Hall* (XI). A great S storm, the ground covered 20 in. deep; near Clevedon it was 22 in.; at Gaerlwydd also 20 in. It was deepest along a line drawn from Clevedon through Gaerlwydd (Newchurch), *i.e.* S. and N. of this place; less to E. and W.

14th to 16th.—*Melton Mowbray, Coston.* S showers.

15th.— *Kensington, Edith Road* (I). Dense black fog from 9 a.m. to 2 p.m., and S falling all day.—*Kensington, Campden Hill, W.* Four inches of S.—*Lansdowne Crescent, W.* S 3½ in. deep.—*Muswell Hill* (I). Heavy S storm.—*Finchley, Etchingham Park* (I). S almost without intermission from 5 or 6 a.m. till about 10 p.m., lying about 6 in. deep at 9 a.m. on the 16th.—*Pinner Hill* (I). S 6 in. deep.—*Dorking, Abinger.* S all day.—*Wallington.* Snowing all day.—*Ospringe, Lorenden* (II). Heavy S, yielding ·40 in.—*Keston Tower* (II). Snowing all day.—*Hastings, High Beech, Hollington* (II). S.—*Reading, Portland Place* (II). Severe S storm.—*Maidenhead, Lowood* (II). Heavy S storm, ·67 in.—*Great Berkhampstead.* S 5 in. deep at 9 p.m.—*Oxford, Elsfield* (III). S.—*Stanton St. John's, Woodperry* (III). S.—*Epping, The Hemnalls* (IV), S.—*Salisbury, Alderbury* (V). Heavy S.—*Bradford* (V). Heavy S, yielding ·85 in.—*Calne, Compton Bassett* (V). Heavy S.—*Ashburton, Druid.* Heavy S.—*Penzance, St. Clare* (V). S.—*Temple Combe, Stowell.* Heavy S storm.—*Frome, Rock House, Mells* (V). Severe S storm, lasting 12 hours; S lay at a uniform depth of 18 in., and yielded 1·61 in.—*Axbridge, Winscombe* (V). Very heavy S, yielding 1·90 in.—*Wickwar Rectory* (VI). Fifteen inches of S.—*Cirencester, Further Barton* (VI). Heavy S.—*Barnard Castle, Whorlton* (X). S at night.—*Gorebridge, Middleton.* One inch of S. [See also *Met. Mag.*, vol. XXII., pp. 36-38].

15th and 16th.—*Dennel Hill* (VI). 16 inches of S, yielding 1·37 in.

15th to 21st.—*Babbacombe.* S on ground.

16th.—*Sheppey, Leysdown* (II). S 5 inches deep.—*Littlehampton.* S.—*Corwen, Rhug.* S.—*Melrose.* Aurora.

17th.—*Dorking Abinger.* S storms.—*Littlehampton.* Gale.—*Calne.*

Compton Bassett (V). Intense frost.—*Loweswater, Waterend* (X). S.—*Shap.* S at night.

17th and 18th.—*Diss.* S.

17th to 19th.—*Hastings, High Beech.* S daily.

18th.—*Melbourne.* S.—*Scarborough.* Heavy showers of H and R.—*Cross Fell, Kirkland* (X). Deep S.—*Broadford, Hurdlestown.* S.—*Oxford.* S.

19th.—*Finchley, Etchingham Park* (I). S between 7 and 8 a.m.—*Ashburton, Druid.* Heavy S.

20th.—*Dorking, Abinger.* S early.—*Penzance, St. Clare.* S.—*Bath, Queen's Parade.* S.—*Crickhowel, Gwernvale.* S.—*Glasgow, Queen's Park.* H.

21st.—*Melbourne.* S.—*Liverpool, Walton-on-the-Hill* (VIII). S and H.—*Castle Malgwyn* [*Llechryd*]. S.—*Douglas, Victoria Road* (XI). S.E. gale with R and S.—*Broadford, Hurdlestown.* N.E. gale.—*Ennis* (XX). H.—*Miltown Malbay* (XX). S storm.

21st and 22nd.—*Portlaw, Mayfield* (XX). R 1·44 in.—*Ballinamore, Lawderdale.* S.

21st to 23rd.—*Emsworth, Redlands.* Gales.—*Crossmolina, Enniscoe.* H and sleet daily.

21st to 24th.—*Derrycastle* [*Killaloe*] (XX). S showers daily.

22nd.—*Pinner Hill* (I). T at night.—*Littlehampton.* S.S.W. gale.—*Banbury, Bloxham* (III). S.—*Babbacombe.* S.S.E. gale.—*Melton Mowbray, Coston.* S.—*Ketton Hall* [*Stamford*]. S early.—*Mansfield.* Heavy S storm.—*Loweswater, Waterend* S.—*Shap.* S and sleet.—*Llechryd, Fern Hill.* Gale at night.—*Glasgow, Queen's Park.* About 2 inches of S.—*Newcastle West* (XX). H and sleet.

22nd and 23rd.—*Galway, Queen's College* (XXII). Squally, with heavy showers of R and sleet.

22nd to 24th.—*Elvaston.* Heavy S.W. gales.—*Miltown Malbay.* H daily.

23rd.—*Lansdowne Crescent, W.* (I). S.S.W. gale.—*Dorking, Abinger.* Strong W. gale.—*Keston Tower* (II). Heavy S.W. gale.—*Great Berkhampstead.* Strong W. gale.—*Rendlesham Hall.* S.W. to W. gale.—*Diss.* S. gale.—*Babbacombe.* Terrific S.W. gale, doing much damage; attaining a velocity of 58 miles in the hour from 3 to 4 a.m., being the max. velocity registered since the S.W. storm of January 26th, 1884.—*Templecombe, Stowell.* Strong gale.—*Ross, The Graig.* Severe gale at night.

24th.—*Pinner Hill* (I). H storm at 3 p.m.—*Wallington* (II). H.—

Banbury, Bloxham. H and S storms.—*Builth, Llanwrtyd Wells.* Heavy showers of H and R.

25th.—*Great Berkhampstead.* W. gale.—*Sudbury* (IV). H.—*Shap.* Loud T at 3.40 p.m.

27th.—*Great Berkhampstead.* High W.N.W. wind; heavy H shower at noon.—*Diss.* Gale from S., with T.—*Mansfield.* High wind.—*Watten H.R.S.* (XIX). W.N.W. gale all day.

31st.—*Finchley, Etchingham Park.* R, H and S.—*Diss.* Heavy N.W. gale and heavy S.—*Ketton Hall* [*Stamford*]. Strong gale.—*Mansfield.* Loud T; high wind.—*Elvaston.* High wind, R and S.—*Scarborough.* Storm of H, S and R., with violent gale at night.—*Keswick, Borrowdale Vicarage* (X). H.—*Watten H.R.S.* N.W. gale with showers of R and H.—*Miltown Malbay.* N.E. gale.

APRIL.

1st.—*Lansdowne Crescent, W.* (I). S melting as it fell.—*Pinner Hill* (I). S and H.—*Dorking, Abinger* (II). S storm.—*Reigate, Holmfels* (II). S.—*Wallington* (II). S.—*Tenterden* (II). S.—*Canterbury, Harbledown* (II). S for an hour and a quarter.—*Keston Tower* (II). S.—*Sheppey, Leysdown* (II). Heavy S.—*Littlehampton* (II). S.—*Hastings, High Beech, Hollington* (II). S.—*Woodford, The Harts* (IV). S.—*Rendlesham Hall* (IV). S storms.—*Diss* (IV). S.—*Torquay, Babbacombe* (V). N. gale.—*Melton Mowbray, Coston* (VII). Gale all day, with R and H.—*Horncastle, Hemingby* (VII). Heavy gale.—*Elvaston* (VII). Heavy N. gale.—*Scarborough* (IX). A violent gale.—*East Layton* [*Darlington*] (IX). A strong gale.—*Douglas, Victoria Road* (XI). N.N.W. gale.—*Forres H.R.S.* (XVII). H.

4th.—*Littlehampton.* Sharp white frost.—*Salisbury, Alderbury* (V). S. *Colmonell* (XIV). About an inch of S.—*Forres H.R.S.* H and sleet.—*Inverness H.R.S.* (XVIII). 2 inches of S.

4th and 5th.—*Dalnaspidal H.R.S.* (XVI). S.—*Loch Shiel, Glenaladale* (XVIII). S and sleet.—*Drumnadrochit* (XVIII). S.—*Cawdor* [*Nairn*] (XVIII). S.—*Forsinard H.R.S.* (XIX). S and sleet.—*Watten H.R.S.* (XIX). H and S.—*Crossmolina, Enniscoe* (XXII). H and sleet.

5th.—*Finchley, Etchingham Park* (I). S.—*Pinner Hill.* S.—*Babbacombe.* S.—*Teignmouth, Woodway* (V). Sleet.—*Taunton, Lydeard House* (V). S, the country looking quite white for a time.—*Bath, Queen's Parade* (V). S.—*Cheltenham* (VI). S on hills.—*Burton, Derby*

Road (VI). H storm.—*Barnard Castle, Whorlton* (X). Sleet.—*Melmerby* (X). Strong and very cold helm wind with S.—*Uldale Rectory* (X). S.—*Shap* (X). S.—*Llanfrechfa Grange* (XI). S storms.—*Rhayader, Nantgwilt* (XI). S.—*Corwen, Rhug* (XI). S.—*Douglas, Victoria Road* (XI). S.—*New Galloway, Glenlee* (XII). S.—*Selkirk, The Hangingshaw* (XIII). S.—*Ballantrae, Glendrishaig* (XIV). S.—*Glasgow, Queen's Park* (XIV). H.—*Balquhidder, Stronvar* (XVI). S.—*Forres H.R.S.* Heavy S showers; H.—*Derrycastle* [*Killaloe*] (XX). S and H. —*Miltown Malbay* (XX). N.E. gale; sleet.

5th and 6th.—*Dorking, Abinger.* S.—*Melrose* (XII). S.

6th.—*Tenterden.* S.—*Hythe* (II). S.—*Sheppey, Leysdown.* Strong N.N.W. gale.—*Hastings, High Beech.* S.—*Calne, Compton Bassett* (V). High wind.—*Babbacombe.* Parhelion; N.E. gale.—*Cross Fell, Kirkland* (X). Hills covered with S; helm wind.

6th and 7th.—*Diss.* N. gale.—*Elvaston.* N.E. gale.

7th.—*Babbacombe.* N.E. gale.—*Miltown Malbay.* Sharp frost, ice nearly half-an-inch thick.

12th.—*Emsworth, Redlands* (II). Singularly hot.—*Llanfrechfa.* Thick fog.—*Keith H.R.S.* (XVII). Half-an-inch of S.

12th and 13th.—*Dorking, Abinger.* Fog.

13th.—*Horncastle, Hemingby.* S.—*East Layton* [*Darlington*]. S.—*Barnard Castle, Whorlton.* S.—*Melrose.* H.—*Forsinard H.R.S.* Sleet.

13th and 14th.—*Scarborough.* S

14th.—*Finchley, Etchingham Park.* Showers of S and soft H.—*Dorking, Abinger.* S.—*Wallington.* S.—*Hythe.* S and H.—*Littlehampton.* Sharp frost, destroying early potatoes.—*Broxbourne.* S.—*Rendlesham Hall.* H and S.—*Weybread Vicarage* (IV). S storms.—*Diss.* S and H. —*Downham, Crimplesham.* S.—*Melton Mowbray, Coston.* S storms.—*Ketton Hall* [*Stamford*] (VII). S and sleet.—*Cross Fell, Kirkland.* Snowing on fells.—*Shap.* S and hard frost.

15th.—*Weybridge, Oakfield* (II). Min. temp. in shade 25°, and on grass 13°·2, the lowest on record for April, but the season being backward and the air dry, the injury to vegetation was slight.—*Northampton* (III). Ice seen.—*Calne, Compton Bassett.* Sharp frost.—*Ashburton, Druid* (V). Thick ice.—*Melton Mowbray, Coston* (VII). Damp fog in afternoon.—*Melmerby.* S.

15th to 17th.—*Torrington, Langtree* (V). Very sharp frost; ice from a quarter of an inch to an inch thick.

16th.—*Tenterden.* H.—*St. Neots, Tetworth.* Sharp frost.

17th.—*Lansdowne Crescent, W.* Sharp frost.—*Enfield, Forty Hill* (I).

Min. temp. 21°·5; the lowest on record for April.—*Tenterden.* Min. temp. in shade 27°, and on grass 22°.—*Rendlesham.* Sharp frost; min. temp., 22°.

18th.—*Babbacombe.* Parhelion.

20th.—*Dunkeld H.R.S.* (XVI). S on hill tops.

20th and 21st.—*Forsinard H.R.S.* Sleet.

20th to 28th.—*Dalnaspidal, H.R.S.* S daily.

21st.—*Burton, Derby Road.* TS, with H and S.—*Macclesfield* (VIII). N.W. gale.

22nd.—*New Galloway.* H.—*St. Andrews, Pilmour Cottage* (XVI). T.

22nd and 23rd.—*Glasgow, Queen's Park.* H.

22nd to 27th.—*Miltown Malbay.* H, R, S, and sleet.

23rd.—*Great Berkhampstead* (III). Sharp R and H showers.—*Diss.* S gale.—*Torrington, Langtree.* Sharp frost and H.—*Penzance, St. Clare* (V). H.—*Cirencester, Further Barton* (VI). T; a tree at Minety, Wilts, was struck by L.—*Melton Mowbray, Coston.* Severe H storm, with T about 2 p.m.—*Horncastle, Hemingby.* H.—*Mansfield* (VII). T—*Macclesfield.* T and H.—*Meltham, Harewood Lodge* (IX). TSS.—*Baldersby* (IX). A severe TS at 1 p.m., lasting about 20 minutes, killing ten sheep, and doing considerable damage to house property in this district.—*Barnard Castle, Whorlton.* T.—*Keswick, Borrowdale Vic.* (X). S on hills.—*Selkirk, The Hangingshaw.* H showers.—*Crossmolina, Enniscoe.* H.

23rd and 24th.—*Banbury, Bloxham* (III). H storms.—*Wetwang* (IX). T.—*Thixendale* (IX). T.—*Melrose.* T.—*Clifden, Kylemore* (XXII). H showers.

23rd to 27th.—*Babbacombe.* H daily.

23rd to 29th.—*Derrycastle* [*Killaloe*]. S daily.

24th.—*Wallington.* H. *Great Berkhampstead* (III). Very heavy R, with sharp H showers. Between 1.7 a.m. and 2 a.m., ·23 in. fell.—*Diss.* Heavy S.W. gale.—*Calne, Compton Bassett.* H and S.—*Beaminster* (V). H storms.—*Ashburton Druid.* Hills white with H.—*Gloucester, Maisemore Lock* (VI). T and H.—*Burton, Derby Road.* H storm.—*Burton, Hoar Cross* (VI). H.—*Keswick, Borrowdale Vic.* Soft S falling for several hours.—*Cockermouth, Hassness* (X). S.—*Uldale.* About 4 in. of S.—*Llanfrechfa.* T at 2 p.m..—*Dumfries, Crichton Inst.* (XII). H showers.—*Fermoy, Gas Works* (XX). S on the ground.—*Broadford, Hurdlestown* (XX). S.—*Crossmolina, Enniscoe.* Sleet.

24th and 25th.—*New Galloway.* S.—*Killarney, Woodlawn* (XX). Squalls, with T and H.

24th to 26th.—*Loch Shiel, Glenaladale.* S and sleet.—*Drumnadrochit* Sleet daily.—*Galway, Queen's College* (XXII). S, H and sleet.

25th.—*Babbacombe.* Solar halo.—*Ashburton Druid.* Heavy H showers.—*Teignmouth, Woodway.* H storm from 3.5 to 3.20 p.m. The first H stones were hard and globular, then for a short time they were conical half-inch long, and the broad end, which was slightly convex, about three-eighths of an inch in diameter, these were soft; those that followed were very soft and amorphous. The lower air current was N.E., the higher W.—*Nottingham, Beeston Fields* (VII). Sharp frost.—*East Layton* [*Darlington*]. H.—*Cross Fell, Kirkland.* H and S.—*Llandovery* (XI). Heavy S.—*Builth, Llanwrtyd Wells* (XI). S.—*Douglas, Victoria Road.* H.—*Glasgow, Queen's Park.* H.—*Broadford, Hurdlestown* (XX). S.W. gale; S.—*Ennis* (XX). S.—*Clifden, Kylemore.* Sleet; S on mountains.—*Londonderry, Knockan* (XXIII). S.

25th and 26th.—*Macclesfield.* S.—*Broughton-in-Furness* (VIII). S.—*Stronvar.* S.—*Nenagh, Castle Lough* (XX). S on the high lands.—*Mullingar, Belvedere* (XXI). S.—*Athlone, Twyford* (XXI). Heavy S. *Crossmolina, Enniscoe.* S.—*Ballinamore, Lawderdale* (XXII). S.

25th to 27th.—*Melmerby.* S daily.—*Selkirk, The Hangingshaw.* S.—*Ballantrae.* Heavy S showers.—*Seaforde* (XXIII). Sleet daily.

26th.—*Great Berkhampstead.* S.S.E. gale.—*Oxford* (III). H storms.—*Sudbury* (IV.) ·23 in. of R fell in two hours.—*Diss.* Heavy S.W. gale.—*Babbacombe.* S.S.W. gale.—*Gloucester, Maisemore Lock* (VI). S.—*Cheltenham* (VI). S and sleet.—*Burton, Hoar Cross.* S.—*Horncastle, Hemingby.* S.—*Melbourne* (VII). S.—*Elvaston.* Very stormy; R and S.—*Wetwang* (IX). S storm.—*Scarborough.* S.—*Barnard Castle, Whorlton.* S.—*Uldale Rectory.* S.—*Shap.* R, H, S and sleet.—*Llanfrechfa.* S.—*Llechryd, Fern Hill* (XI). S and sleet.—*Corwen, Rhug* (XI). S.—*Douglas, Victoria Road.* S.—*Glasgow, Queen's Park.* S and sleet.—*Forres H.R.S.* S.—*Cawdor* [*Nairn*]. S.—*Portlaw, Mayfield* (XX). Heavy S, with very large flakes.—*Clifden, Kylemore* (XXII). H showers.

26th and 27th.—*Sheffield, Chapeltown* (IX). S showers.—*Borrowdale, Grange* (X). S.—*Woodlawn* (XXII). Heavy S showers.

27th.—*Finchley, Etchingham Park.* S about 5 a.m.—*Pinner Hill.* H.—*Dorking, Abinger.* S storm.—*Sheppey, Leysdown.* H storm at 1.20 p.m. At 3 p.m. there was a sudden and strong squall from S.E., after which the wind backed to N.W.—*Oxford.* H and S.—*Banbury, Bloxham* (III). H storm.—*Diss.* H.—*Ashburton, Druid.* Heavy H and sleet.—*Temple Combe, Stowell* (V). TS.—*Gloucester, Maisemore Lock* (VI). H.—*Macclesfield.* S and H.—*Wetwang.* T.—*East Layton* [*Darlington*]. S.—*Barnard*

Castle, Whorlton. Sleet.—*Keswick, Borrowdale Vic.* S.—*Cockermouth, Hassness.* S.—*Cross Fell, Kirkland.* H and S —*Llechryd, Fern Hill.* H showers.—*Douglas, Victoria Road.* Heavy S storm at 2 p.m.—*Dumfries, Crichton Institution* (XII). H and S showers.—*Glasgow, Queen's Park.* Heavy H showers.—*Forsinard H.R.S.* Sleet.—*Watten H.R.S.* Sleet and S.

27th and 28th.—*New Galloway, Glenlee.* T.—*Melrose.* S, H, and T each day.—*Edgeworthstown, Currygrane* (XXI). T and H.

28th.—*Littlehampton* (II). Very white frost, cutting off main crop of potatoes.—*Babbacombe.* Solar halo.—*Rosthwaite, Castle Lodge* (X). S.—*Glasgow, Queen's Park.* H.—*Crossmolina, Enniscoe.* H.

28th and 29th.—*Seaforde.* H.

29th.—*Ashburton, Druid.* H.—*Llandovery.* T.—*New Galloway.* H. —*Selkirk, The Hangingshaw.* Distant T and heavy H.—*Dunmanway, Coolkelure* (XX). T.—*Fermoy, Gas Works.* S on the ground.—*Derrycastle* [*Killaloe*]. T and heavy H.—*Galway, Queen's College.* T.

29th and 30th.—*Nenagh, Castle Lough.* T.

30th.—*Miltown Malbay.* Frequent distant T; ice three-eighths of an inch thick.

MAY.

2nd.—*Ashburton, Druid* (V). Fog.—*Shap, Copy Hill* (X). Heavy fog.—*Llechryd, Fern Hill* (XI). S.—*Builth, Llanwrtyd Wells* (XI). S.

2nd and 3rd.—*Torquay, Babbacombe* (V). Fog.

3rd.—*Cross Fell, Kirkland* (X). S on the fells.

5th.—*Shap.* T.—*Balquhidder, Stronvar* (XVI). T.

5th to 7th.—*Dalnaspidal H.R.S.* (XVI). Fog.

6th.—*Banbury, Bloxham* (III). Fog.

7th.—*Ross, The Graig* (VI). Fog.—*Shap.* T and H.—*Dumfries, Crichton Institution* (XII). Fog.

9th.—*Shap.* S and H.

12th.—*Barnard Castle, Whorlton* (X). T.—*Ballantrae, Glendrishaig* (XIV). Fog.

12th and 13th.—*Hythe* (II). H.

13th.—*Wallington* (II). S.—*Diss.* H.

14th.—*Wallington.* H.—*Shap.* S.—*Dalnaspidal H.R.S.* Fog.

15th.—*Dumfries, Crichton Institution.* Fog.

15th and 16th.—*Canterbury, Harbledown* (II). N.E. gale.

17th and 18th.—*Shap.* Heavy falls of S.

18th.—*Dover, Pencester Street* (II). Heavy storms of wind and R,

accompanied by singular darkness from 1 p.m. to 3 p.m.—*Banbury, Bloxham.* Fog.—*Barton Hall* (X). S.

18th and 19th.—*Broughton-in-Furness* (VIII). S.

18th to 21st.—*Dalnaspidal, H.R.S.* S daily.

19th.—*Emsworth, Redlands* (II). W.S.W. gale.—*Banbury, Bloxham.* T.—*Northampton* (III). S.W. gale.—*Diss.* S.S.W. gale at night.—*Babbacombe.* S.W. gale.—*Cheltenham* (VI). Stormy, with S.—*Melton Mowbray, Coston* (VII). Strong gale.—*Cockermouth, Hassness* (X). S and R, 1·64 in.—*Llechryd, Fern Hill.* Gale at night.—*Douglas, Victoria Road* (XI). Terrific N.W. gale and bitterly cold, causing great havoc among leaves and fruit blossom.—*Gorebridge, Middleton* (XIII). Ground white with S.—*Nenagh, Castle Lough* (XX). N.W. to N. gale.—*Newcastle West* (XX). A violent gale, doing much damage.—*Broadford, Hurdlestown* (XX). Severe gale at night.—*Miltown Malbay* (XX). N.W. gale, with S, H and R, doing much damage to fruit trees, &c.

19th and 20th.—*St. John's* [*Devonport*] (V). Heavy N.N.W. gale.—*Mansfield* (VII). Gales, with R and sleet, but not much damage.—*Keswick, Borrowdale Vicarage* (X). Strong wind, with S, sleet and R, 1·91 in.—*Hutton Roof* (X). S.—*Uldale Rectory* (X). S.—*Colmonell* (XIV). H showers.—*Forres H.R.S.* (XVII). H.—*Mullingar, Belvedere* (XXI). H.—*Clifden, Kylemore* (XXII). Stormy with H.

19th to 21st.—*Drumnadrochit* (XVIII). S on hills.

20th.—*Lansdowne Crescent, W.* (I). Violent S.W. to N.W. gale, with frequent R and H, and H storm at 3·52 p.m., with great fall of temp.—*Dorking, Abinger* (II). H and T.—*Keston Tower* (II). Heavy W. gale.—*Littlehampton* (II). H and T.—*Emsworth, Redlands* (II). W. gale, H, T.—*Great Berkhampstead* (III). Strong W. gale; sharp shower of large opaque H.—*Banbury, Bloxham.* H.—*Rendlesham Hall* (IV). Strong S.W. gale.—*Weybread Vic.* (IV). Great gale blowing down trees.—*Diss.* Heavy S.W. gale all day, doing considerable damage.—*Babbacombe.* W.N.W. gale.—*Torrington, Langtree* (V). Very severe storm of wind, with H stones as large as marbles.—*Penzance, St. Clare* (V). H.—*Temple Combe, Stowell* (V). H.—*Bath, Queen's Parade* (V). S and H.—*Gloucester, Maisemore Lock* (VI). H.—*Cheltenham.* H.—*Cheadle, The Heath House* (VI). R, H and S with very strong wind.—*Melton Mowbray, Coston.* H showers.—*Horncastle, Bucknall* (VII). Heavy N.W. gale and low temp.—*Elvaston* (VII). Heavy N.W. gale.—*Chester, Christleton Hall* (VIII). A very high W.N.W. wind cutting young foliage on all trees, damaging fruit blossom and blowing

down large trees.—*Frodsham, Dunsdale* (VIII). A heavy gale, injuring the bloom on plum and pear trees. *Meltham, Harewood Lodge* (IX). Very severe gale, with sleet, tearing all young leaves to pieces in exposed places, especially chestnut leaves.—*Barton Hall* (X). S.—*Cross Fell, Kirkland.* H and S.—*Melmerby* (X). H and S.—*Llanfrechfa Grange* (XI). Heavy N.W. gale, with sharp H storms, doing much damage to fruit trees.—*Llandovery* (XI). H and S.—*Llechryd, Fern Hill.* T.—*Builth, Llanwrtyd Wells.* H, R and S.—*Douglas, Victoria Road.* Hills white with S.—*New Galloway, Glenlee* (XII). Heavy R, and H showers.—*Melrose* (XII). Sleet and H; Eildon Hills white.—*Selkirk, The Hangingshaw* (XIII). S from 6 a.m. till noon.—*North Esk Reservoir* [*Penicuick*] (XIII). A great storm of S and drift, covering many sheep and lambs.—*Miltown Malbay.* H showers.

20th and 21st.—*Kensington, Edith Road* (I). Intense cold, with sharp squalls of H.—*Pinner Hill* (I). H showers—*Broxbourne* (III). S, H and frost.—*Ashburton, Druid.* H and S.—*Macclesfield* (VIII). S and H.—*East Layton* [*Darlington*] (IX). Very stormy, with S and sleet.—*Dumfries, Crichton Inst.* S on the hills.—*Loch Shiel, Glenaladale* (XVIII). S on the hills.—*Derrycastle* [*Killaloe*] (XX). Sleet.—*Edgeworthstown, Currygrane* (XXI). S and H.—*Woodlawn* (XXII). H showers.—*Seaforde* (XXIII). H.—*Londonderry, Knockan* (XXIII). Stormy with heavy H.

21st.—*Finchley, Etchingham Park* (I). Peal of T about 3.40 p.m.—*Ewhurst, Heathside* (II). A TS came up from the S.W. and seemed centred over Cranleigh, 3 miles distant to the S.W. by S. One bright forked flash of L, as seen from this house, struck six oak trees, of fair size, in a row. Three were quite destroyed, and three badly damaged.—*Wallington.* T and H.—*Benenden, East End* (II). S, yielding ·17 in.—*Tenterden.* (II). S.—*Sevenoaks, River Hill* (II). S.—*Maresfield, Forest Lodge* (II). Heavy S and H in evening.—*Emsworth, Redlands.* T.—*Great Berkhampstead* (III). TS.—*Oxford* (III). T.—*Banbury, Bloxham.* H and T.—*Northampton* (III). L, H and R.—*Weybread Vicarage.* T and H.—*Beccles, Ellough* (IV). S and H.—*Babbacombe.* S; Dartmoor white; the latest date yet registered.—*Temple Combe, Stowell.* TS and H.—*Cirencester, Further Barton* (VI). H.—*Gloucester, Maisemore Lock.* T and H.—*Cheltenham.* T.—*Ross, The Graig.* H.—*Melton Mowbray, Coston.* Heavy H storms.—*Ketton Hall* [*Stamford*] (VII). T.—*Horncastle, Hemingby* (VII). T and H.—*Ulceby, Limber Grange* (VII). The last S of spring.—*Nottingham, Beeston Fields* (VII). T, L, S and R at 11.30 a.m.—*Elvaston* (VII). T, L and

H.—*Melmerby* (X). S showers throughout the day.—*Uldale Rectory.* H.—*Forres H.R.S.* Sleet.—*Cawdor* (XVIII). S showers.

21st and 22nd.—*Melrose.* S.

22nd.—*Ballantrae, Glendrishaig.* Very stormy with H showers.

22nd to 24th.—*Miltown Malbay.* Fog.

23rd.—*Dalnaspidal H.R.S.* Fog.

25th.—*Babbacombe.* Fog.—*Ashburton, Druid.* Thick fog.—*Gloucester, Maisemore Lock.* T.—*Llechryd, Fern Hill.* T.—*Dalnaspidal H.R.S.* Fog.

26th.—*Babbacombe.* T and L.—*Ashburton, Druid.* T and L.—*Cirencester, Further Barton.* T and L.—*Macclesfield.* Strong N.E. gale.—*Forres H.R.S.* Fog.

27th.—*Macclesfield.* S.—*Shap.* Heavy fog all day.

27th to 30th.—*Dalnaspidal H.R.S.* Fog daily.

29th.—*Torrington, Langtree.* T.—*Llechryd, Fern Hill.* T.

31st.—*Torrington, Langtree.* T.—*Temple Combe, Stowell.* TS.—*Llechryd, Fern Hill.* T.—*Melrose.* Fog.—*Forres H.R.S.* Fog.

JUNE.

1st.—*Great Berkhampstead* (III). T.—*Northampton* (III). L and T.—*Sandy, The Lodge* (III). TS.—*Torquay, Babbacombe* (V). Fog.—*Penzance, St. Clare* (V). Fog.—*Burton, Derby Road* (VI). Frost.—*Worcester, Diglis Lock* (VI). S storms.—*Ketton Hall* [*Stamford*] (VII). T.—*Kendal, Ellergreen* (X). Frost.

1st and 2nd.—*Shrivenham, Ashbury Vicarage* (II). 1·81 in. of R fell in about 28 hours from 4 p.m. on 1st to 8 p.m. on 2nd.

2nd.—*Emsworth, Redlands* (II). N.E. gale with heavy R, 1·39 in. falling in nine hours from 2 p.m. to 11 p.m.—*Horncastle, Hemingby* (VII). Gale at night.—*Melmerby* (X). Helm wind.—*Bishop's Cannings* (V). Heavy R (1·15 in.), which saved the potatoes and increased the hay crop.

2nd and 3rd.—*Weybridge, St. George's Lodge* (II). Between 2.30 p.m. on the 2nd and 9 a.m. on the 4th 1·16 in. of R fell.—*Handsworth* (VI). Between 9 p.m. on 2nd and 9 p.m. on 3rd 2·02 in. of R fell, 1·44 in. falling in the first 12½ hours.

4th.—*Dumfries, Crichton Institution* (XII). Fog.

4th and 5th.—*Babbacombe* (V). Fog.

6th.—*Dumfries, Crichton Institution.* Fog.

7th —*Babbacombe.* Fog.

7th and 8th.—*Emsworth, Redlands.* Fog.

8th.—*Clifden, Kylemore* (XXII). Strong W. gale.

16th.—*Clifden, Kylemore.* T.

17th.—*Shap, Copy Hill* (X). T.

18th.—*Kelso, Springwood Park* (XII). Heavy R, 1·33 in. falling in about three hours.—*Melrose* (XII). An exceptionally severe TS from 5 p.m. to 7 p.m. For more than half-an-hour the T never ceased. Very little damage, however, was done.—*Strathmiglo, Loden Urquhart* (XVI). Sharp TS.—*St. Andrews* (XVI). T and L.—*Dalnaspidal H.R.S.* (XVI). T.—*Drumnadrochit* (XVIII). A violent TS, during which ·77 in. of R fell in 15 minutes, from 1.45 to 2 p.m. H stones quite half-an-inch in diameter fell.

19th.—*Borrowdale Vicarage* (X). TS on the hills.—*Melmerby.* Helm wind in afternoon.—*Shap.* T.—*Balquhidder, Stronvar* (XVI). T from 2 p.m. to 6 p.m.

24th.—*Shap.* T.—*Watten, H.R.S.* (XIX). T.

26th.—*Gloucester, Maisemore Lock* (VI). Fog.

27th.—*Portlaw, Mayfield* (XX). Max. temp. 89°·5, the highest temp. recorded here.

30th.—*Barnard Castle, Whorlton* (X). T.

JULY.

3rd.—*Kensington, Addison Gardens* (I). Max. temp. 92°; the highest in the year.

5th.—*Meltham, Harewood Lodge* (IX). Very heavy R for a few minutes at 7.30 p.m.; ·09 in. fell in 4 minutes.—*Shap, Copy Hill* (X). T.—*Melrose* (XII). T.—*Selkirk, The Hangingshaw* (XIII). Distant T. *Cambuslang, Bushy Hill* (XIV). T and L.—*Dalnaspidal H.R.S.* (XVI). H.—*Forsinard H.R.S.* (XIX). Frost at night.

6th.—*Dover, Pencester Street* (II). Unusual clearness of the atmosphere, the coast of France being very distinct for many miles inland. In the west a curious flat cloud of an intensely blue colour was seen.—*Kendal, Ellergreen* (X). Frost.—*North Esk Reservoir* [*Penicuick*] (XIII). T.

8th.—*New Galloway, Glenlee* (XII). T.

9th.—*Dumfries, Crichton Inst.* (XII). T.—*Tain, Springfield* (XVIII ·48 in. of R fell in less than an hour.—*Forsinard H.R.S.* T and heavy R.—*Watten H.R.S.* (XIX). Exceptionally prolonged TS.—*Derrycastle* [*Killaloe*] (XX). T and heavy R, 1·27 in.

10th.—*Finchley, Etchingham Park* (I). ·15 in. of R fell in 30 min.

11th.—*Cushendun* (XXIII). R 1·04 in., of which ·85 in. fell in one hour.

12th.—*Ashburton Druid* (V). Fog.

13th.—*Meltham, Harewood Lodge.* TS, with heavy R.—*Coupar Angus* (XVI). Min. temp. 59° ; the highest min. recorded here.

14th.—*Banbury, Bloxham* (III). T.—*Diss* (IV). Distant T.—*Temple Combe, Stowell* (V). TS.—*Frome, Rock House, Mells* (V). TS, during which 1·35 in. of R fell in one hour.—*Bath, Queen's Parade* (V). TS.

15th.—*Lansdowne Crescent, W.* (I). TS and slight R.—*Finchley, Etchingham Park.* L and T, with ·21 in. of R, between 4.10 and 5 p.m. —*Throcking Rectory* (III). TS, with ·45 in. of R in 30 minutes.—*Northampton* (III). TL and R.—*Sedgebrooke* (III). Violent TS, from 4.35 to 5.18 p.m., with heavy R and H, ·76 in. falling in 43 minutes.—*Oxford, St. Giles* (III). T and L.—*Rendlesham Hall* (IV). Heavy R at night, 1·24 in.—*Weybread Vic.* (IV). TS.—*Wiveliscombe, Willett House* (V). 1·09 in. of R fell in 30 minutes from 2·30 to 3 p.m.—*Cheltenham* (VI). TS.—*Wyastone Leys* [*Monmouth*]. (VI). 1·09 in. of R fell in about 2 hours.—*Ross, The Graig* (VI). TS, with heavy R, ·89 in.—*Llanfrechfa Grange* (XI). Heavy TS.—*Melrose.* Distant T.

16th.—*Finchley, Etchingham Park.* L and T.—*Pinner Hill.* (I). L. —*Dorking, Abinger* (II). Heavy TS at Dorking, but very little R fell here.—*Wallington* (II). Violent TS, from 7 p.m. to 8.30 p.m., with 1·28 in. of R in an hour-and-a-half.—*Tenterden* (II). TS.—*Hythe* (II). TS.—*Canterbury, Harbledown* (II). TSS.—*Littlehampton* (II). T.—*Diss.* TS.—*Mansfield* (VII). T.—*Frodsham, Dunsdale* (VIII). TS.—*Barnard Castle, Whorlton* (X). TS.—*Shap.* T.—*New Galloway* T.—*Selkirk, The Hangingshaw.* Distant T.—*North Esk Res.* [*Penicuick*]. T.—*Edinburgh, Blacket Place* (XIII). TS, with heavy R.—*St. Andrews* (XVI). T.

16th and 17th.—*Melton Mowbray, Coston* (VII). T.

17th.—*Canterbury, Harbledown.* Violent TS ; 1·11 in. of R fell in 65 minutes.—*Emsworth, Redlands* (II). T, L and R from 3.30 to 5.30 p.m. —*Babbacombe.* TS ; solar halo.—*Ashburton, Druid.* TS.—*Teignmouth, Woodway* (V). TS.—*Temple Combe, Stowell.* TS.—*Cheltenham.* T.—*Corwen, Rhug* (XI). H.

18th.—*Great Berkhampstead* (III). Grass min., 32°·6.

19th.—*Ballantrae, Glendrishaig.* (XIV). Fog.—*Dalnaspidal H.R.S.* T.

20th.—*Shap.* T.

21st.—*Ashburton, Druid.* Fog.

22nd and 23rd.—*Babbacombe.* Solar halos.

24th.—*Sandy, The Lodge* (III). TS.—*Mansfield* (VII). High wind.

25th.—*Shap.* T.

26th.—*Diss.* S.S.W. gale.—*Llanfrechfa.* Heavy S.W. gale.—*Dalnaspidal H.R.S.* T.

27th.—*Edinburgh, Blacket Place* (XIII). TSS.

27th to 29th.—*Douglas, Victoria Road.* S.W. gale.

30th.—*Colmonell* (XIV). TS.—*Derrycastle* [*Killaloe*]. H.

31st.—*Wallington.* Fog; TS.—*Great Berkhampstead.* T and L.—*Northampton.* Distant T.—*Sandy, The Lodge.* TS.—*Sudbury* (IV). T.—*Weybread Vicarage.* TS.—*Diss.* Heavy T shower, ·44 in. of R falling in about half-an-hour.—*Babbacombe.* L.—*Teignmouth, Woodway.* T.—*Melton Mowbray, Coston.* T, with very vivid L and heavy H storm.—*Ketton Hall* [*Stamford*] (VII). T.—*Horncastle, Bucknall* (VII). ·71 in. of R fell in 45 minutes.—*Alford, The Burial Ground* (VII). TS; 1·18 in. of R fell in one hour.—*Nottingham, Beeston Fields* (VII). Heavy T and H shower at 6.30 p.m.—*Mansfield.* T.—*Elvaston* (VII). TS.—*Meltham, Harewood Lodge.* T.—*Barnard Castle, Whorlton.* TS.—*Melmerby* (X). T.—*Douglas, Victoria Road.* T and L.—*New Galloway.* T and heavy H.—*Dumfries, Crichton Institution.* TS.—*Melrose.* Distant T.—*North Esk Reservoir* [*Penicuick*]. T.—*Edinburgh, Blacket Place.* TSS.—*Colmonell.* Severe TS.—*Edgeworthstown, Currygrane* (XXI). T.—*Belfast, New Barnsley* (XXIII). Heavy R, with severe T and L.

AUGUST.

6th.—*Shap, Copy Hill* (X). T.

10th and 11th.—*Miltown Malbay* (XX). Frosts, doing much injury to potato stalks.

13th.—*Tenterden* (II). T.—*Teignmouth, Woodway* (V). L.—*Burton, Hoar Cross* (VI). Sharp frost; ice as thick as a penny.—*Shap.* Ice as thick as a shilling. Potatoes frost nipped.—*Melrose* (XII). L.

14th.—*Broxbourne* (III). Vegetable marrows and delicate plants in exposed places cut by frost.—*Burton, Derby Road* (VI). Frost.—*Macclesfield* (VIII). Frost, blackening French beans and potatoes.—*Esthwaite* (VIII). Kidney beans touched by frost; potatoes in low-lying fields, and gardens cut.—*Leeds, Oliver Hill, Horsforth* (IX). Frost on grass.—*Sedbergh, Brig Flatts* (IX). Frost blackening potato tops, and killing marrows, dahlias, &c.—*Sedbergh, Thorns Hall* (IX).

Frost blackened dahlias, heliotropes and potato tops.—*Thixendale* (IX). Frost, doing damage in gardens.

14th to 16th.—*Kendal, Ellergreen* (X). Frost each night.

15th.—*Reading, Russell Street* (II). Vegetable marrows cut by frost. —*Sedgebrook* (III). Hoar frost.—*Melton Mowbray, Coston* (VII). Ground frost.

16th.—*Muswell Hill* (I). L and T.—*Finchley, Etchingham Park* (I). L and T.—*Pinner Hill* (I). T.—*Forest Row, Ashdown Cottage* (II). A slight earthquake shock, with rumbling noise was felt at 7.18 p.m., over a very limited area; it was felt more strongly in the E.N.E., making crockery rattle on shelves.—*Maresfield, Forest Lodge* (II).— Very heavy TS after midnight; R 1·06 in.—*Oxford* (III). TS.— *Babbacombe* (V). L.—*Ashburton, Druid* (V). L.—*Penzance, St. Clare* (V). T—*Ross, The Graig* (VI). TS.—*Burton, Hoar Cross.* T with heavy R, 1·19 in.—*Worcester, Diglis Lock* (VI). TS.—*Builth, Llanwrtyd Wells* (XI). T and L.—*New Galloway, Glenlee* (XII). T.—*Cawdor* [*Nairn*] (XVIII). T.—*Kilkishen* (XX). T, L and heavy R, ·72 in. falling in half-an-hour.

16th and 17th.—*Llanfrechfa Grange* (XI). T and L.—*Broadford, Hurdlestown* (XX). T and L.

17th.—*Ealing, Local Board Office* (I). Very heavy R, 1·75 in.—*Kensington, Edith Road* (I). Heavy TS. in evening, with 1·07 in. of R. R also fell in the morning, making the total for the day 1·65 in.— *Kensington, Addison Gardens* (I). TS.—*Lansdowne Crescent, W.* (I). Tremendous TS between 6 p.m. and 9.30 p.m., 1·61 in. of R falling in 3¼ hours and 2·25 in. in 24 hours.—*Muswell Hill.* L and T.— *Finchley, Etchingham Park.* L and T.—*Esher, West End* (II). A TS appeared to form about two miles W. about 5.30 p.m., and from 6 p.m. to 6.45 p.m. was directly overheard, the L being very vivid and mostly less than three quarter mile distant. A chimney in Walton-on-Thames was knocked down and a few slates were stripped off a roof in Hersham.—*Wallington* (II). TS 5.30 p.m. to 9.30 p.m. —*Tenterden.* Severe TSS with heavy R, 1·22 in.—*Hythe* (II). TS from 6.30 a.m. to 10.30 p.m., with heavy R, 1·05 in.—*Canterbury, Harbledown* (II). TSS.—*Littlehampton* (II). T.—*Arundel, Clapham Rectory* (II). A heavy R storm at 5.10 p.m., lasting about an hour; R ·38 in. At Angmering, two miles off, hardly any R fell.—*Brighton, Blatchington Road* (II). The only TS of the year.—*Emsworth, Redlands* (II). TS.—*Great Berkhampstead* (III). TS.—*Oxford.* Severe TS with heavy R; 1·09 in.—*Oxford, St. Giles'* (III). A violent TS.—*Banbury,*

Bloxham (III). Severe TS in the distance, but no R here.—*Shaftesbury* (V). The only TS of violence during the summer.—*Babbacombe.* T.—*Bath, Queen's Parade* (V). TS.—*Gloucester, Maisemore Lock* (VI). T, H, and heavy R.—*Cheltenham* (VI). TS.—*Tewkesbury, Beckford* (VI). 1·28 in. of R fell in 75 minutes.—*Burton, Derby Road.* TS.—*Melmerby* (X). T.—*Dumfries, Crichton Institution* (XII). T and L.—*Kelso, Springwood Park* (XII). Very heavy R, 2·73 in. falling in about three hours.—*Melrose.* T and L.—*North Esk Reservoir* [*Penicuick*] (XIII). Severe TS, with H and heavy R, 1·40 in.—*Edinburgh, Blacket Place* (XIII). Sharp TS.—*Derrycastle* [*Killaloe*]. T.

17th and 18th.—*Selkirk, The Hangingshaw* (XIII). T.

18th.—*Pinner Hill.* Severe TS.—*Tenterden.* T.—*Sedgebrook.* T and L.—*Weybread Vicarage* (IV). T and L.—*Melton Mowbray, Coston.* Vivid L and T.—*Horncastle, Bucknall* (VII). Tropical R for about ten minutes; total for the day 1·58 in.—*Mansfield* (VII). T.—*Chesterfield, Brimington Hall* (VII). TS, with ·51 in. of R.—*Macclesfield.* T; a house near the railway station struck by L, the sun shining at the time.—*Melrose.* T.—*Cambuslang, Bushy Hill* (XIV). T and L.

19th.—*Leeds, Methley Park* (IX). TS, with ·50 in. of R.—*Douglas, Victoria Road* (XI). T and L.—*Colmonell, Dalreoch* (XIV). TSS.

20th.—*Tenterden.* TS 10 a.m. to 11.30 a.m., began in E. and travelled round by S.E., S., and S.W. to W.—*Hythe.* TS.—*Littlehampton.* T, H and R.—*Emsworth, Redlands.* T.

22nd.—*Sedgebrook.* Hoar frost.—*Babbacombe.* Fog.—*Melton Mowbray, Coston.* Ground frost.—*Edgeworthstown, Currygrane* (XXI). T.

22nd and 23rd.—*Dumfries, Crichton Institution.* Fog.

23rd.—*Watten H.R.S.* (XIX). Fog.

24th.—*Kilkishen.* L.—*Miltown Malbay.* T and L.

25th.—*Babbacombe.* Fog.

25th and 26th.—*Dumfries, Crichton Institution.* Fog.—*Galway, Queen's College* (XXII). L and T.

26th.—*Melrose.* Fog.

27th.—*Esthwaite.* TS.—*Borrowdale Vicarage* (X). L.—*Uldale Rectory* (X). T and L.—*Builth, Lanwrtyd Wells.* TS.—*New Galloway, Glenlee.* L.—*Miltown Malbay.* T.—*Londonderry, Knockan* (XXIII). TS.

27th and 28th.—*Rosthwaite, Castle Lodge* (X). T.—*Balquhidder, Stronvar* (XVI). T.

28th.—*Broxbourne.* T; ·46 in. of R. fell in half-an-hour at 1 p.m.—*Macclesfield.* T.—*Esthwaite* (IX). Severe TS.—*Meltham, Harewood Lodge* (IX). TS from 6.30 p.m. to 7 p.m.—*Barnard Castle, Whorlton*

(X). TS.—*Borrowdale Vicarage* (X). TS.—*Melmerby.* T.—*Shap.* TS.—*Corwen, Rhug* (XI). TS.—*Forres H.R.S.* T.—*Drumnadrochit* (XVIII). Sharp TS.—*Cawdor* [*Nairn*] T.—*Forsinard H.R.S.* (XIX). T and L.—*Balbriggan* (XXI). Strong gale at night, with T, L and heavy R. 1·35 in.

28th and 29th.—*Miltown Malbay.* T and L.

29th.—*Diss* (IV). Severe TS, doing some damage round Diss.—*Babbacombe.* T.—*Melton Mowbray, Coston.* T.—*Cross Fell, Kirkland* (X). TS.—*Strathmiglo, Loden Urquhart* (XVI). ·29 in. of R fell in ten minutes, from 9.50 a.m.—*Watten H.R.S.* Fog.—*Derrycastle* [*Killaloe*]. H.—*Galway, Queen's College* (XXII). L and T.

29th and 30th.—*Benenden* (II). 1·38 in. of R.

30th.—*Emsworth, Redlands.* S.W. gale.—*Ketton Hall* [*Stamford*] (VII). T.—*Liverpool, Walton-on-the-Hill* (VIII). A brilliant lunar rainbow about 11.15 p.m.—*Middleton-on-the-Wolds* (IX). Heavy R, 1·12 in.—*Builth, Llanwrtyd Wells.* T and L and heavy R, 1·40 in.—*Watten H.R.S.* TS.

31st.—*Wallington.* TS.—*Great Berkhampstead.* T at noon; W.S.W. gale.—*Northhampton* (III). S.W. gale.—*Cheltenham.* T all the morning.—*Melton Mowbray, Coston.* T and high wind.—*Horncastle, Hemingby* (VII). T.—*Mansfield.* T.—*Macclesfield.* T.—*Oystermouth, Newton* (XI). Violent storm.—*Drumnadrochit.* T.—*Watten H.R.S.* Fog.

SEPTEMBER.

1st.—*Throcking Rectory* (III). In 20 minutes ·20 in. of R fell.—*Northampton* (III). Gale at night.—*Diss* (IV). S.W. gale.—*Torquay, Babbacombe* (V). Solar halo; S.S.E. to S.W. gale.—*Ashburton, Druid* (V). Heavy R (1·87 in.), with high wind all day.—*Axminster, Furzebrook* (V). S. to S.W. gale.—*St. John's* [*Devonport*] (V). S.W. to S.E. gale, with heavy R, ·77 in.—*Crewkerne, Bincombe House* (V). Gale and heavy R.—*Burton, Derby Road* (VI). Gale from S.W.—*New Galloway, Glenlee* (XII). T.—*Watten H.R.S.* (XIX). TS.—*Miltown Malbay* (XX). Heavy R, 2·05 in.; the weight of the downpour passed to N.E., and on the 2nd one of the roads in a mountain glen was completely swept away for a quarter of a mile by the flood.—*Galway, Queen's College* (XXII). Continuous R for 22 hours, causing considerable damage by floods.

2nd.—*Kensington, Edith Road* (I). Severe gale all day.—*Benenden, East End* (II). Gale.—*Hythe* (II). Severe S.W. gale with rain squalls,

doing great damage to hops and fruit.—*Keston Tower* (II). Heavy S.W. gale.—*Littlehampton* (II). A very rough gale, doing considerable damage.—*Great Berkhampstead* (III). W.S.W. gale.—*Babbacombe.* Heavy S.W. gale.—*Rendlesham Hall* (IV). S.W. gale.—*Diss.* S. gale. —*Babbacombe.* Heavy S.W. gale, scorching vegetation.—*Alford, The Burial Ground* (VII). Very stormy.—*Melrose* (XII). T and L.—*Edinburgh, Blacket Place* (XIII). Extremely local TS, ·29 in. of R fell in 14 minutes; at the Royal Observatory 2 inches fell, while at places a mile distant the sky was clear.—*North Esk Reservoir* [*Penicuick*] (XIII). T and L.

3rd.—*Lansdowne Crescent, W.* (I). S.S.W. gale and R.—*Broxbourne* (III). A heavy gale, doing great damage to ripening fruit.

4th.—*Great Berkhampstead.* T.—*Diss.* S.W. gale.—*Edinburgh, Blacket Place.* Slight TS with heavy R, ·33 in. fell in 10 minutes.—*Cushendun* (XXIII). ·52 in. of R fell in half-an-hour.

5th.—*Great Berkhampstead.* W.S.W. gale.—*Babbacombe.* W.S.W. gale.

6th.—*Babbacombe.* L.—*Burnage, Manchester* (VIII).—Whirlwind, doing much damage [See *Met. Mag.* vol. xxii., p. 136].

7th.—*Dorking, Abinger* (II). T.—*Tenterden* (II). TS.—*Littlehampton.* T.—*Ashburton, Druid.* Fog in the valleys.—*Gloucester, Maisemore Lock* (VI). Fog.—*Worcester, Diglis Lock* (VI). Fog.—*Nottingham, Beeston Fields* (VII). Frost.

9th.—*Melton Mowbray, Coston* (VII). T.

11th.—*Dalnaspidal H.R.S.* (XVI). Fog.

12th.—*Wakefield, Stanley Vicarage* (IX). H.—*Dumfries, Crichton Institution* (XII). Fog.—*Melrose.* T.

13th.—*Weybread Vicarage* (IV). T and L.

16th.—*New Galloway.* L.

17th.—*Dorking, Abinger.* Fog.—*Babbacombe.* Fog.—*Ross, The Graig* (VI). Fog.

19th.—*Gloucester, Maisemore.* Fog.

21st to 25th.—*Dumfries, Crichton Institution.* Fog daily.

22nd to 26th.—*Derrycastle* [*Killaloe*] (XX). Fog daily; dense on 24th.

26th.—*Macclesfield* (VIII). H.—*Ballantrae, Glendrishaig* (XIV). H. —*Dalnaspidal H.R.S.* S.—*Loch Shiel, Glenaladale* (XVIII). S on hill tops.—*Miltown Malbay.* N.W. gale.

27th.—*Littlehampton.* T, L, R and H.—*Burgess Hill, Prescott* (II). ·26 in. of R fell in ten minutes from 1.50 p.m. to 2 p.m.—*Henley-on-*

Thames, Assenton (III). Lunar rainbow.—*Oxford* (III). TS and H.—*Weybread Vicarage.* TS.—*Cirencester, Further Barton* (VI). T.—*Burton, Hoar Cross* (VI). TS with H.—*Melton Mowbray, Coston.* T and vivid L.—*Macclesfield.* T.

27th and 28th.—*Miltown Malbay.* H showers.

28th.—*Cambridge, Beech House* (III). Min. temp. 32°, not previously reached in 17 years, earlier than October 10th.—*Ross, The Graig.* Fog.—*Burton, Hoar Cross.* Sharp frost.—*Macclesfield.* H.—*Kendal, Ellergreen* (X). Frost.—*Llanfrechfa Grange* (XI). T.—*St. Andrews* (XVI). T.—*Coupar Angus* (XVI). T; frost.

28th and 29th.—*Gloucester, Maisemore.* Fog.

29th.—*Emsworth, Redlands* (II). T.—*Woodbridge, Melton* (IV). T.—*Babbacombe.* L.—*Teignmouth, Woodway* (V). L and H.—*Gloucester, Llanthony Lock* (VI). Fog.—*Ross, The Graig.* Dense fog.—*Ketton Hall* [*Stamford*] (VII). Thick fog and sharp frost.—*Broughton-in-Furness* (VIII). T.—*East Layton* [*Darlington*] (IX). Severe TS, the L was remarkable for its frequency and varied colour.—*Shap, Copy Hill* (X). Severe TS, with H from 6.35 p.m. to 9.10 p.m.—*Douglas, Victoria Road* (XI). T and L, with heavy R at night.—*Barnard Castle, Whorlton* (X). T, L and H.—*Rosthwaite, Castle Lodge* (X). T.—*Barton Hall* (X). TS.—*Melmerby* (X). T.—*Uldale Rectory* (X). T.—*Melrose.* T.—*Strathmiglo, Loden Urquhart* (XVI). Sharp TS.—*Derrycastle* [*Killaloe*]. H.—*Newcastle West* (XX). T and L at 3 p.m.; three heifers killed at Barna, three miles distant.—*Kilkishen* (XX). T.—*Broadford, Hurdlestown* (XX). About 2 p.m. there was a heavy H shower, and during it one most vivid flash of L, followed by a dreadful clap of T.—*Miltown Malbay.* Heavy T with H.—*Galway, Queen's College.* T.

30th.—*Shap.* Lake mountains covered with S.—*Dumfries, Crichton Institution.* Fog.—*Watten H.R.S.* Fog.

OCTOBER.

1st.—*Lower Walmer* (II). S.

1st to 9th.—*Newcastle West* (XX). Foggy mornings.

3rd to 6th.—*Reigate, Holmfels* (II). Fog daily.

7th.—*Borrowdale Vicarage* (X). S on hills.—*New Galloway, Glenlee* (XII). Hills white with S.

7th to 9th.—*Meltham, Harewood Lodge* (IX). Continuous R for more than 48 hours; 2·20 in.

8th.—*Gloucester, Maisemore Lock* (VI). Fog.—*Shap, Copy Hill* (X).

R, H, S and sleet.—*Dumfries, Crichton Institution* (XII). S on hills.—*Selkirk, The Hangingshaw* (XIII). H.—*Forsinard H.R.S.* (XIX). Sleet.

8th to 14th.—*Dalnaspidal H.R.S.* (XVI). S or sleet each day.—*Forres H.R.S.* (XVII). H and sleet daily.

9th.—*Ashburton, Druid* (V). Fog in valleys.—*Penzance, St. Clare* (V). H.—*Gloucester, Llanthony Lock* (VI). Fog.—*Corwen, Rhug* (XI). S.—*Douglas, Victoria Road* (XI). H showers.—*Drumnadrochit* (XVIII). S on hills.—*Forsinard H.R.S.* H.—*Killarney, Woodlawn* (XX). Sharp frost.—*Clifden, Kylemore.* (XXII). Sleet.

9th and 10th.—*Builth, Llanwrtyd Wells* (XI). S.—*North Esk Reservoir* (XIII). S.

10th.—*Emsworth, Redlands* (II). L and T.—*Great Berkhampstead* (III). Heavy shower of R and H.—*Cheltenham, Battledown* (VI). H.—*Diss* (IV). W. gale.—*Babbacombe* (V). L.—*Ashburton, Druid.* (V.) L.—*Melton Mowbray, Coston* (VII). S, exceptionally early.—*Melrose* (XII). H.—*Loch Shiel, Glenaladale* (XVIII). Sleet; S on hill tops.—*Miltown Malbay* (XX). L.—*Londonderry, Knockan* (XXIII). H.

10th and 11th.—*New Galloway.* L.—*Drumnadrochit.* S.

11th.—*Lansdowne Crescent, W.* (I). S.—*Pinner Hill* (I). S.—*Dorking, Abinger* (II). S.—*Redhill, Oxford Road* (II). S.—*Ashford, Bethersden* (II). S and sharp frost.—*Sevenoaks, River Hill* (II). S.—*Reading, Portland Place* (II). S.—*Broxbourne* (III). S.—*Oxford* (III). H.—*Cambridge, Beech House* (III). S.—*Woodford, The Harts* (IV). S.—*Epping, The Hemnalls* (IV). S.—*Earl's Colne, Chalkney House* (IV). First S.—*Babbacombe* L and H.—*Ashburton, Druid.* H, S and L.—*Ross, The Graig* (VI). Dahlias first touched by frost.—*Burton, Derby Road* (VI). S, followed by sharp frost on 12th.—*Scarborough* (IX). S.—*Ingleby Manor* (IX). First S.—*Llandovery* (XI). Heavy S.—*Carno, Tybrith* (XI). One inch of S.—*Corwen, Rhug.* S.—*Douglas, Victoria Road.* L and H.—*Dumfries, Crichton Institution.* L.—*Melrose.* H; Eildons white.—*Loch Shiel, Glenaladale.* S.—*Watten, H.R.S.* (XIX). H.—*Killarney, Woodlawn.* S on mountains.—*Navan, Balrath* (XXI). S.—*Belfast, New Barnsley* (XXIII). Sleet and S.—*Londonderry, Knockan.* S.

11th and 12th.—*Penzance, St. Clare.* H.—*Chelford, Astle Hall* (VIII). Sharp frost.

12th.—*Kensington, Edith Road* (I). Ground at 9 a.m. white with S.—*Finchley, Etchingham Park* (I). S early, lying till next day.—*Tenterden* (II). S about an inch deep by 9 a.m.—*Keston Tower* (II). S.—*Rendlesham Hall* (IV). Sharp frost.—*Weybread Vicarage* (IV). S

on ground.—*Diss.* The first S.—*Beaminster* (V). S.—*Babbacombe.* N.N.E. gale.—*Ashburton, Druid.* Heavy S showers; hills white.—*Exeter, Brampford Speke* (V). S.—*W. Buckland, Devon County School* (V). Ground and trees covered with S.—*Nottingham, Beeston Fields* (VII). Severe frost.—*Llandovery.* S and H.—*Rhayader, Nantgwilt* (XI). S.—*Douglas, Victoria Road.* TS and heavy S storm.

13th.—*Tenterden.* Sharp frost injuring tender plants.—*Sheppey, Leysdown* (II). Severe frost.—*Great Berkhampstead.* All dahlias, potato tops and nasturtiums killed by frost.—*Drumnadrochit.* Sleet.

14th.—*Lansdowne Cres., W.* Fall of H, and great darkness at 1·50 p.m.—*Great Berkhampstead.* H.—*Weybread Vic.* H storms.—*Diss.* Heavy W. gales, with R and H squalls.—*Scarborough.* S and H.

15th.—*Broxbourne.* S.—*Ulceby, Limber Grange* (VII). The first S of autumn.

16th.—*Burton, Hoar Cross* (VI). Dense fog.

17th.—*New Galloway.* Thick fog in valleys.

18th.—*Gloucester, Llanthony Lock* (VI). Fog—*Clifden, Kylemore.* Strong W. gale.

19th.—*Ashburton, Druid.* Fog in valley.—*Gloucester, Maisemore Lock.* Dense fog.—*Selkirk, The Hangingshaw.* Gale at night.

20th and 21st.—*Forsinard H.R.S.* Sleet.

21st.—*Gloucester, Maisemore Lock.* Fog.

22nd.—*Reigate, Holmfels.* Fog.—*Gloucester, Llanthony Lock.* Fog. *Ross, The Graig.* Dense fog and severe frost.—*Burton, Derby Road.* Dense fog in morning.—*Worcester, Bevere Lock* (VI). Fog.—*Ketton Hall* [*Stamford*] (VII). Severe frost.—*Shap.* A heavy fog all day.—*Drumnadrochit.* S.—*Killarney, Woodlawn.* Sharp frost.

22nd to 24th.—*Forsinard H.R.S.* S.

23rd.—*Oxford.* H.—*Burton, Hoar Cross.* Dense fog.—*Ketton Hall* [*Stamford*]. Faint aurora at 8.30 p.m.—*Douglas, Victoria Rd.* N.W. gale and H.—*Loch Shiel, Glenaladale.* S lying on grass.—*Cawdor* [*Nairn*] (XVIII). S.—*Watten H.R.S.* S.—*Belfast, New Barnsley.* Sleet.

23rd to 25th.—*Dalnaspidal, H.R.S.* S daily.

24th.—*Rendlesham.* Sleet.—*Horncastle, Hemingby* (VII). A gale with S showers.—*Alford, The Burial Ground* (VII). Very stormy; wind N.; ground covered with S.—*Wetwang* (IX). Heavy S storm.—*Thixendale* (IX). Much S.—*Scarborough.* S and H.—*New Galloway.* S on distant hills.—*Watten H.R.S.* H.

24th and 25th.—*Diss.* S, H and R.

25th.—*Fordingbridge, Wood Green* (II). Sharp frost at night.—*Downham, Crimplesham.* First S.—*Ashburton, Druid.* Ice on pools.—*Llechryd, Castle Malgwyn* (XI). Severe frost.—*Cushendun* (XXIII). Dahlias, heliotropes, &c., cut down by frost.

25th to 27th.—*Drumnadrochit.*—Lunar rainbows.

26th.—*Reigate, Holmfels.* Fog.—*Banbury, Bloxham* (III). Sharp frost, cutting down ash and chestnut leaves.—*Ashburton Druid.* Thick fog in valley.—*Ketton Hall* [*Stamford*]. Severe frost; slight fog.—*Douglas, Victoria Road.* S.W. gale.—*Derrycastle* [*Killaloe*] (XX). Constant heavy R after 1 p.m., 1·33 in.—*Broadford, Hurdlestown* (XX). S. gale with heavy R.—*Clifden, Kylemore.* Severe S.W. storm; R, 1·85 in.

26th and 27th.—*Ulverston, Poaka Beck* (VIII). 2·65 in. of R fell in 26 hours continuous R.—*Melrose.* S.W. gales for 24 hours.

27th.—*Ballantrae, Glendrishaig* (XIV). Fog.—*Derrycastle* [*Killaloe*]. Fog.—*Broadford, Hurdlestown.* S. gale at night.—*Miltown Malbay.* H and L.

27th to 30th.—*Galway, Queen's College* (XXII). Sleet daily.

28th.—*Ledbury, Canon Frome.* Severe frost.—*Douglas, Victoria Road.* S.W. gale.—*Balquhidder, Stronvar* (XVI). T.—*Broadford, Hurdlestown.* Fog all day.—*Edgeworthstown, Currygrane* (XXI). Gale with H and heavy R.

29th.—*Dorking, Abinger.* 1·23 in. of R fell in less than 12 hours.—*Chichester, Westgate* (II). Extraordinary high wind at night, with ·77 in. of R.—*Emsworth, Redlands.* Severe S.W. gale.—*Ashburton, Druid.* Heavy R, 2·02 in.—*Truro, Porthgwidden* (V). Heavy R (2·15 in.) after 5 p.m.—*Lostwithiel, Lanwithan* (V). 2·06 in. of R fell in less than 12 hours.—*Crewkerne, Bincombe House* (V). N.E. gale and heavy R.—*Melton Mowbray, Coston.* Gale and heavy R at night.—*Ketton Hall* [*Stamford*]. Strong gale after 10 p.m.; R 1·03 in.—*East Layton* [*Darlington*] (IX). S.—*New Galloway.* L.—*Cambuslang, Bushy Hill* (XIV). T and L.—*Glasgow, Queen's Park* (XIV). T.—*Newcastle West.* Large H and sleet.—*Ballinamore, Lawderdale* (XXII). W. gale.

29th and 30th.—*Sheppey, Leysdown.* Violent S.S.W. gale.—*Cirencester, Further Barton* (VI). Gale, with T, L and heavy R; 1·30 in. on 29th.—*Burton, Derby Road.* Gale from W.—*Broadford, Hurdlestown.* H.—*Miltown Malbay.* Squally, with T, L and H.

30th.—*Keston Tower.* Strong W. gale.—*Great Berkhampstead.* Strong W. gale.—*Banbury, Bloxham* (III). Very high wind.—*Sudbury* (IV). A gale.—*Diss.* Heavy gale; T.—*Babbacombe.* N.N.W. gale.—*Ashburton, Druid.* H.—*Temple Combe, Stowell* (V). Gale in early morning; R,

1·11 in.; pressure very low.—*Cirencester, Further Barton.* T and L.—*Ross, The Graig.* Violent gale and heavy R, 1·23 in..—*Douglas, Victoria Road.* Blowing hard with H.—*Derrycastle* [*Killaloe*]. H and heavy sleet, with strong N.W. wind.

31st.—*Emsworth, Redlands.* S. to S.E. gale.—*Oxford.* H and S.—*Babbacombe.* S.S.W. gale.—*West Buckland, Devon County School.* Severe gale at night.—*Temple Combe, Stowell.* H and sleet.—*Burton, Derby Road.* Gale from S. with R and H.—*Worcester, Diglis Lock* (VI). Heavy S.W. gale.—*Llanfrechfa* (XI). Heavy S.E. gale at night.—*Oystermouth, Newton* (XI). Violent storm.—*Douglas, Victoria Road.* Furious S.S.E. gale all night, doing much damage.—*Newcastle West.* H, T and L.—*Broadford, Hurdlestown.* Strong S.W. gale.

NOVEMBER.

1st.—*Kensington, Edith Road* (I). Severe gale all day.—*Lansdowne Crescent, W.* (I). S.S.W. gale and R till 4 p.m.—*Emsworth, Redlands* (II). S.E. to W. gale.—*Great Berkhampstead* (III). Heavy S.S.E. gale.—*Oxford* (III). High wind, H, S and R.—*Bishop's Cannings* (V). S. gale.—*Torquay, Babbacombe* (V). Heavy S. gale, doing much damage.—*Axminster, Furzebrook* (V). S.E. gale.—*St. John's* [*Devonport*] (V). Severe W.S.W. gale, commencing at 11 p.m. on October 31st; the heaviest gale since October 15th, 1877; trees blown down and houses stripped of slates, &c.—*Cheltenham* (VI). Severe gale, doing considerable damage to trees and roofs of houses.—*Ross, The Graig* (VI). Violent gale.—*Burton, Derby Road* (VI). Violent gale from S, causing considerable damage to buildings.—*Chester, Christleton Hall* (VIII). A very strong S.W. wind, blowing down trees and damaging roofs and chimney stacks.—*Liverpool, Walton-on-the Hill* (VIII). Severe S.E. gale.—*Uldale Rectory* (X). Heavy S.W. gale; many trees blown down.—*Llanfairfechan* (XI). A hurricane, very destructive to trees, young and old. About a mile from this station, some 200 trees standing in a valley running S.S.E. to N.N.W. were thrown down or snapped in two.—*New Galloway, Glenlee* (XII). T and L.—*Dumfries, Crichton Inst.* (XII). Squally with T, L and H.—*Balquhidder, Stronvar* (XVI). Gale with H and heavy R.—*Watten H.R.S.* (XIX). S.S.E. gale.—*Newcastle West* (XX). H and sleet.—*Miltown Malbay* (XX). Stormy, with H, T and L.

1st and 2nd.—*Douglas, Victoria Road.* (XI). Terrific S.S.E. gale, doing much damage; pressure at noon on 1st, 28·38 in.—*Garliestown,*

Galloway Ho. (XII). Severe gale.—*Galway, Queen's Coll.* (XXII). L and heavy squalls.—*Tuam, Gardenfield* (XXII). R, 2·55 in.; the largest fall recorded here.

2nd.—*Hythe* (II). R and H.—*Sheppey, Leysdown* (II). H storm and strong gale.—*Littlehampton* (II). N.W. to S.E. gale.—*Maresfield, Forest Lodge* (II). The heaviest fall of the year, 1·07 in.—*Ely, Stretham Ferry* (III). Severe TS without much R.—*Babbacombe.* Heavy S.S.W. gale.—*Burton, Hoar Cross* (VI). T.—*New Galloway.* L. —*Watten, H.R.S.* S.E. gale.

2nd and 3rd.—*Babbacombe.* Heavy S.S.W. gale.

3rd.—*Kensington, Edith Road.* Severe gale at night.—*Canterbury, Harbledown* (II). S.W. gale at night.—*Littlehampton.* N.W. to S.E. gale; with T.—*Great Berkhampstead.* ·17 in. of R fell in 25 minutes. —*Sedgebrook* (III). L.—*Diss* (IV). S.E. gale.—*Babbacombe.* Heavy S.S.W. gale; L, H.—*Gloucester, Maisemore Lock* (VI). H.—*Burton, Derby Rd.* Gale from S, with heavy TS.—*Mansfield* (VII). T with very low pressure, 28·40 in.—*Elvaston* (VII). Heavy TS.—*New Galloway.* T.—*Forres H.R.S.* (XVII). Fog.

4th.—*Littlehampton.* T and L.—*Babbacombe.* Lunar rainbow.— *Shap* (X). H and sleet.—*New Galloway.* S on hills.—*Dalnaspidal H.R.S.* (XVI). S.

5th.—*Dorking, Abinger* (II). Thick fog early.—*Babbacombe.* S.S.W. gale.—*Lawderdale* (XXII). Heavy R, 1·80 in., and great floods.

5th and 6th.—*Miltown Malbay.* N.E. gale.

6th.—*Newcastle West.* Sleet.

6th and 7th.—*Clifden, Kylemore* (XXII). Strong N. gale.

7th.—*Burton, Derby Rd.* Gale from E, with heavy R.—*Shap.* Strong gale.

9th.—*Reigate, Holmfels* (II). Fog.—*New Galloway.* T.

10th.—*Dalnaspidal H.R.S.* S.

11th.—*Reigate, Holmfels.* Fog.—*Wallington* (II). Thick yellow fog.—*Abergavenny, Dyne House* (XI). R daily from October 26th to this date.

12th to 16th —*Dalnaspidal H.R.S.* S daily.

13th.—*Ashburton, Druid* (V). S on moor.

13th and 14th.—*Forres H.R.S.* S.—*Drumnadrochit* (XVIII). S.— *Watten H.R.S.* S.

13th to 16th.—*Forsinard H.R.S.* (XIX). Sleet and S.

14th.—*Diss.* S.—*Melton Mowbray, Coston* (VII). S.—*Meltham, Harewood Lodge* (IX). First S.—*East Layton* [*Darlington*] (IX). Heavy S

and sleet.—*Thornley Vicarage* (X). S.—*Borrowdale Vicarage* (X). S on hills.—*Hutton Roof* (X). S.—*Melmerby* (X). S.—*Uldale Rectory*. S and sharp frost.—*Shap*. S.—*Selkirk, The Hangingshaw* (XIII). S and sleet all day.—*Stronvar*. Sleet.—*Cawdor* [*Nairn*] (XVIII). S.

14th and 15th.—*Hythe*. R and S.—*Horncastle, Hemingby* (VII). S.

15th.—*Dorking, Abinger*. S.—*Canterbury, Harbledown*. 3½ inches of S.—*Sheppey, Leysdown*. S and sleet.—*Broxbourne* (III). S.—*Southend* (IV). S.—*Rendlesham* (IV). S.—*Gloucester, Maisemore Lock* (VI). Fog.—*Scarborough* (IX). S and H.—*Melrose* (XII). S one inch deep.

15th and 16th.—*Emsworth, Redlands*. Severe frost, hard enough to stop hunting, unusual in this locality.

16th.—*Pinner Hill* (I). Dense fog.—*Reigate, Holmfels*. Thick fog.—*Wallington*. Thick fog and hoar frost.—*Oxford*. Very thick fog.—*Luton* (III). Very dense fog.—*Ashburton, Druid*. Fog in valley; hills white.—*Ross, The Graig*. Intense hoar frost; pools frozen over.—*Ketton Hall* [*Stamford*] (VII). Thick fog.—*Barnard Castle, Whorlton*. S.—*Clifden, Kylemore*. W. gale.

16th to 21st.—*Meltham, Harewood*. During this period pressure fell more than an inch in the first two days, and rose again about half an inch in the last four days, and yet there was neither a drop of R nor a breath of wind the whole time, and the appearance of the weather was anti-cyclonic, though overcast at times.

17th.—*Wallington*. Fog.—*Great Berkhampstead*. Severe frost.—*Oxford*. Hard frost and heavy rime.—*Shap*. Heavy fog.

18th.—*Muswell Hill* (I). S.—*Finchley, Etchingham Park* (I). S.—*Pinner Hill* (I). R, S and sleet.—*Dorking, Abinger*. Fog, R and sleet.—*Wallington*. S.—*Keston Tower* (II). Fog.—*Oxford*. Sleet and S.—*Harlow, Sheering* (IV). S.—*Ketton Hall* [*Stamford*]. Sleet.—*Douglas, Victoria Road*. R, H and S.—*New Galloway*. S.—*Stronvar*. Sleet.—*Newcastle West*. H.—*Clifden, Kylemore*. T.

19th.—*Reigate, Holmfels*. Fog.—*Ross, The Graig*. Fog, S and sleet.—*Llanfrechfa* (XI). S.

20th.—*Emsworth, Redlands*. Fog.—*Oxford*. Thick fog.—*Melton Mowbray, Coston*. Very thick fog at night.—*Ketton Hall* [*Stamford*]. Thick fog.—*Derrycastle* [*Killaloe*] (XX). Fog.—*Broadford, Hurdlestown* (XX). Thick fog.

20th and 21st.—*Weybread Vic.* (IV). Dense fog.—*Diss*. Fog.

20th to 22nd.—*Burton, Derby Rd*. Dense fog from night of 20th to morning of 22nd.

21st.—*Reigate, Holmfels*. Fog.—*Ashburton, Druid*. Heavy R,

1·22 in.; fog in valley.—*Liskeard, Dean Terrace* (V). R, 2·73 in. in about 12 hours.—*Ross, The Graig.* Dense fog.—*Horncastle, Hemingby* (VII). Wet fog.—*Shap.* Heavy fog all day.—*Melrose* (XII). Fog.—*Broadford, Hurdlestown.* Very thick fog.

21st to 22nd.—*Keston Tower.* Fog.—*Gloucester, Llanthony Lock.* Fog.—*Burton, Hoar Cross.* Dense fogs.

21st to 23rd.—*Dorking, Abinger.* Fog daily.

22nd.—*Babbacombe.* N.E. gale.

24th.—*Gloucester, Llanthony Lock.* Fog.—*Dalnaspidal H.R.S.* L, R and S.

25th.—*Dalnaspidal H.R.S.* S and heavy R, 1·21 in.—*Clifden, Kylemore.* Strong W. gale.

26th.—*Diss.* S.W. gale.—*Babbacombe.* S.W. gale.—*Rosthwaite, Castle Lodge* (X). S on hill tops.—*Shap.* Strong gale all day.—*Melrose.* Gale lasting 20 hours.—*Galway, Queen's Coll.* Heavy squalls.

27th.—*Diss.* S.W. gale.—*Babbacombe.* S.W. gale.—*Burton, Hoar Cross.* S.W. gale.—*East Layton* [*Darlington*]. Strong S.S.W. to W. gale.—*Barnard Castle, Whorlton.* W. gale.—*Llechryd, Fern Hill* (XI). H.—*Douglas, Victoria Road.* W.S.W. gale.—*Melrose.* Gale lasting 18 hours.—*Derrycastle* [*Killaloe*]. R and sleet.—*Broadford, Hurdlestown.* Heavy H shower.—*Miltown Malbay.* H.—*Clifden, Kylemore.* Sleet.

28th.—*Reigate, Holmfels.* Fog.—*Shap.* R, S and H.—*Drumnadrochit* S.—*Derrycastle* [*Killaloe*]. S on ground.

29th.—*Gloucester, Maisemore Lock.* Fog.—*East Layton* [*Darlington*]. Heavy S.—*Barnard Castle, Whorlton.* S.—*Hutton Roof.* S.—*Shap* R and S.—*Forres H.R.S.* Fog.—*Clifden, Kylemore.* N. gale; sleet.

30th.—*Hythe.* Fog.—*Selkirk, The Hangingshaw.* S. gale at night.—*Watten H.R.S.* W. gale.

DECEMBER.

1st to the 3rd.—*Derrycastle* [*Killaloe*] (XX). Foggy.

2nd.—*Reigate, Holmfels* (II). Fog.—*Dalnaspidal H.R.S.* (XVI). Fog.

3rd.—*Loch Shiel, Glenaladale* (XVIII). S on hills.—*Drumnadrochit* (XVIII). S.—*Clifden, Kylemore* (XXII). Strong N.W. gale.

4th.—*Hutton Roof* (X). S.—*Uldale Rectory* (X). S.—*Melrose* (XII). Eildons covered with S.

4th to 6th.—*Clifden, Kylemore.* Stormy, with H each day.

5th.—*Banbury, Bloxham* (III). Fog.—*Ashburton, Druid* (V). Fog in valleys.—*Gloucester, Llanthony Lock* (VI). Fog.—*Worcester, Bevere*

Lock (VI). Fog.—*Melton Mowbray, Coston* (VII). Fog.—*Dumfries, Crichton Institution* (XII). Fog.— *Watten H.R.S.* (XIX). S.E. gale.—*Broadford, Hurdlestown* (XX). S.W. gale ; R, H and sleet.—*Miltown Malbay* (XX). N.W. gale.

5th and 6th.—*Ennis* (XX). H.

6th.—S or H, (with S.S.W. gale in the S. of England,) reported from stations in nearly all parts of the British Isles—the following are the only special details calling for insertion.—*New Galloway, Glenlee* (XII). R, S, sleet and T.—*Colmonell* (XIV). S 2½ in. deep.—*Balquhidder, Stronvar* (XVI). Five inches of S.

7th.—S again prevalent over the whole country. L was seen at Sudbury (IV), and the S had become 5 in. deep at Glenlee, New Galloway (XII), and at Crichton Institution, Dumfries.

8th.—A S.W. gale is reported from southern stations, and S from some of those in Scotland, but it is not reported as exceeding 5 in. in depth anywhere.

9th.—No S reported on this day except from the Western Counties of England and from Wales.

10th.—Little S, chiefly in S.E. of England.

11th.—S area rather further North, chiefly from Oxfordshire to south Yorkshire.—*Babbacombe* (V). Parhelia.

12th.—*Reigate, Holmfels.* Fog.—*Rendlesham* (IV). Fog.—*Diss* (IV). S.—*Babbacombe.* Fog. —*Ashburton, Druid.* Heavy R, 1·42 in., with fog all day.—*Hutton Roof.* Sleet.—*Douglas, Victoria Road* (XI). S.E. gale.—*New Galloway, Glenlee.* S and heavy R ; 1·04 in.—*Watten H.R.S.* E.S.E. gale.—*Broadford, Hurdlestown.* S.E. gale.—*Miltown Malbay.* S. gale.

13th.—*Diss.* S.E. gale.—*Babbacombe.* S.S.E. to S.W. gale.—*Barnard Castle, Whorlton* (X). Sleet.—*Gorebridge, Middleton* (XIII). An inch-and-a-half of S.—*Miltown Malbay.* S.W. to N.W. gale ; T. —*Galway, Queen's College* (XXII). Sleet showers.

14th.—*Lansdowne Crescent, W.* (I). Heavy squall of R and H, ·38 in. fell in about 30 minutes.—*Hythe* (II). H.—*Littlehampton* (II). T and L.—*Great Berkhampstead* (III). Sharp R and H shower.—*Diss.* S. gale. —*Babbacombe.* S.W. gale ; H ; L.—*Ashburton, Druid.* H.—*Dumfries, Crichton Inst.* H.—*Stronvar.* Sleet.—*Broadford, Hurdlestown.* W. gale. —*Miltown Malbay.* N.W. gale ; T, L and heavy H.

15th.—*Babbacombe.* L.—*Ashburton Druid.* Fog.—*Dumfries, Crichton Inst.* Fog.—*Melrose.* T.—*Forsinard H.R.S.* (XIX). Fog.

15th and 16th.—*Emsworth, Redlands* (II). S.W. to W. gale.—*Hutton Roof.* Sleet.

15th to 17th.—*Douglas, Victoria Rd.* Continuous S.W. gale; very severe on 17th.

16th.—*Babbacombe.* S.W. gale.—*Ashburton, Druid.* H.—*Torrington, Langtree* (V). H storms.

17th.—*Littlehampton.* H.—*Eastbourne* (II). T and L.—*Babbacombe.* Parhelia.—*Burton, Hoar Cross* (VI). S.—*Builth, Llanwrytd Wells* (XI). H.—*New Galloway, Glenlee.* T and heavy R.—*Stronvar.* Sleet.—*Loch Shiel, Glenaladale.* S.—*Ballinamore, Lawderdale* (XXII). S.

18th.—S at most English stations, N. of 52°, and at those in Scotland and the N. of Ireland.—*Reading, Portland Place* (II). TS with H.

19th.—Snow at a few stations in various parts of England, but quite unimportant.

20th.—S at a few scattered stations.

22nd.—Snow general in Scotland.—*Athlone, Tuyford* (XXI). A complete bow without prismatic colours, only a pure white, was observed opposite the sun, between noon and 1 p.m., lasting about half-an-hour.

22nd to 27th.—Much fog in almost all parts of the country.

24th.—*Rendlesham.* R and sleet.—*Horncastle, Hemingby* (VII). S.—*Miltown Malbay.* S shower.

25th.—S general in the S.E. of England.

25th to 28th.—*Hythe.* S daily; 10 inches deep on 26th.

26th.—*Tenterden* (II). S 7 or 8 inches deep, deeper than any fall of dry S since December 5th, 1875.—*Ospringe, Lorenden* (II). Heavy S, yielding ·79 in.

26th and 27th.—S general, but heaviest in the S.E. of England.—*Dover, Pencester Street* (II). Very heavy S, with drifts 15 ft. to 18 ft. deep.—*Sheppey, Leysdown* (II). Heavy S storm with high wind, depth 6 inches.

27th.—*Ashford, Bethersden* (II). S 12 inches deep.—*Horncastle, Bucknall* (VII). Four inches of S fell in one hour.

28th.—*Eastbourne.* S.—*Sandy, The Lodge* (III). S.—*Babbacombe.* S.—*Exeter, Brampford Speke* (V). S.—*Hutton Roof.* Sleet and S.—*Drumnadrochit.* S.—*Tipperary* (XX). S.

28th to 30th.—*Dumfries, Crichton Institution.* Fog daily.

28th to 31st.—*Derrycastle* [*Killaloe*]. Fog.

29th.—*Cirencester, Further Barton* (VI). S.—*Worcester, Diglis Lock* (VI). S.—*Scarborough* (IX). S.

29th and 30th.—*Horncastle, Hemingby.* Sleet.

30th.—*Stotfold* [*Baldock*] (III). S.—*Exeter, Brampford Speke.* S.—*Coventry, Coundon* (VI). S.—*Loch Shiel, Glenaladale.* S.

31st.—*Reigate, Holmfels.* Fog.—*Oxford* (III). S.—*Rendlesham.* Fog.—*Ketton Hall* [*Stamford*] (VII). Slight fog.—*Scarborough.* S.—*Barnard Castle, Whorlton.* S showers.—*Glasgow, Queen's Park* (XIV). Sleet.—*Stronvar.* S showers.

OBSERVERS' NOTES ON THE MONTHS.

JANUARY.

I. *Lansdowne Crescent, W.* The first 18 days were cold, especially the 1st and 2nd; the remainder of the month was mild.—*Muswell Hill.* R little more than three-quarters of the average of 15 years; much S fell in the early part of the month.—*Finchley, Etchingham Park.* R below the average. Five-sevenths of the total fell during the first ten days. Practically no R fell after the 19th, ·01 in. entered to the 27th, and ·01 in. to the 29th, being the results of wet fog. Some of the S which fell on the 26th and 27th of December remained on the ground under the hedgerows till the 26th of January, and in one field till the 29th, while ice remained on a small pond close by till the 30th.

II. *Dorking, Abinger.* S lay on the ground nearly the whole month, the fall of December 26th being followed by a fall of about six inches on the 3rd, which happily did no damage. Fogs were very prevalent, and the weather was changeable, but became somewhat settled towards the close.—*Wallington.* The first 17 days were cold, with min. in shade below 32° every day except the 8th; the latter half of the month was warm, the min. in shade only once (on the 30th) being below 32°. Fogs were prevalent. All out-door operations were at a complete standstill till the last week. R about the average. 50 hours of sunshine were recorded, and there were 14 days on which the sun did not shine.—*Wrotham, The Elms.* On the whole the month was fairly favourable to work on the land, the latter part being very pleasant, some days quite springlike and balmy. Some of the S which fell in December still lay in patches under sheltered hedges at the close.—*Keston Tower.* Very cold up to the 18th, when it became milder. Ground covered with S till the 18th.—*Littlehampton.* There was a marked difference between the weather on this coast and that north of the Downs. S did not lie for 24 hours, nor was skating possible for 24 hours all through the month, and birds were singing daily.—*Emsworth, Redlands.* Hard frost prevailed to the 16th; mild, muggy weather from the 17th to the close.

III. *Great Berkhampstead.* First half extremely cold and wet, second half very mild and dry. S on ground from 4th to 19th, varying in depth from 3 to 10 inches.—*Buntingford, Throcking.* A cold month with snow, which lay about a long time. R ·32 in. below the eight-year average. Mean temp. 1°·4 below the eight-year average.—*Banbury, Bloxham Grove.* The temperature for 18 days fell below 32°, and up to the 11th there was more or less S daily, on 4 days the fall being considerable. Roads were in a most dangerous state from S partially thawed and frozen again. From the 19th to the close the temp. only twice fell below 32°.—*Northampton, Hazlewood Road.* R ·46 in. above the average of 21 years. Heavy S fell on the night of 3rd, remaining on the ground until 23rd. Wind W.N.W. and S.W. until 30th, when it changed to S.E. Dense fogs on one or two occasions.

IV. *Harlow, Sheering.* R ·68 in. below the average of 20 years.—*Ipswich, Bishop's Hill.* The first half of the month was cold and frosty, with much S; the latter half warm and free from R, but with a little S.—*Diss.* The new year set in with severe frost (temp. 14°) and very sharp weather with plenty of skating continued till the third week, when it became warm and mild, and remained so to the close. The S was heavy and deep during the first half of the month, and considerable floods occurred during the slow thaw.

V. *Calne, Compton Bassett.* Continuous frost till 18th, with a thick covering of S till 20th. The remainder of the month was dull and hazy, with frequent fogs.—*Torquay, Babbacombe.* A cold, very damp month with large range of pressure, but less wind than usual. R ·99 in. or 23 per cent., and mean temp. 1°·5 below the average. Damper and calmer than any of the preceding ten Januarys. R fell nearly every day from 2nd to 19th. Cold except on 11th, till 17th, but warm on 11th, 18th, 19th and 25th to 31st. S.W. winds prevailed on three days more than the average, E. on three days less. S fell on six days, but did not cover the ground here, though the distant hills were often white. H on two days; solar halos on two, parhelia on three, fog on six days.—*Ashburton, Holne.* R·37 in. below the average of six years.—*Temple Combe, Stowell Rectory.* A rather cold month on the whole, with great fluctuations of temperature and pressure during the first half; calm and foggy during the latter half.

VI. *Cirencester, Further Barton.* Severe weather lasted until 17th, when a change took place, and the rest of the month was mild and calm. More or less S fell for ten days in succession at the beginning of the month, and slight thaws took place, followed by frost

which rendered the roads almost impassable from ice. Pressure exceptionally low from 5th to 9th, but without wind.—*Ross.* The first three weeks were very cold and changeable, with much S. Pressure below 29 in. from 5th to 8th. Skating on meadows, but not on the river. The end of the month was much warmer.—*Burton, Derby Road.* The first half of the month was very cold, but the weather then turned milder. The R was ·73 in. above the average of eight years, the only month in the year in which the difference lay on that side.

VII. *Melton Mowbray, Coston.* Remarkable for the extreme cold of the earlier part, and for the continuance of the frost, rendering the roads almost impassable. The latter part was comparatively mild, raising the mean temperature.—*Ketton Hall* [*Stamford*]. Very cold up to 18th, and the ground covered with S to 22nd; from 18th to the close much milder. Wind very changeable to 25th, but mostly from westerly points.—*Horncastle, Bucknall.* The six weeks of frost and S began to finally break up on 19th, after which it was very fine and warm, with no R. One remarkable feature of the frost was the persistence of the southerly wind which blew on 10 out of the first 13 days. S 6 in. or 7 in. deep on 6th.—*Southwell, Oxton.* The coldest January since 1881. Rainfall about the average. Heavy falls of S occurred on 4th and 7th.—*Mansfield.* First three weeks unusually severe with heavy S storms on 3rd, 4th, 7th and 17th. Beautiful weather during the last week. R ·22 in. below the average of 17 years. Temp. much below the average. S lay from December 26th to January 25th.—*Worksop, Hodsock Priory.* Very cold month with deep S. The severe weather, which had lasted six weeks, broke up in the last week of the month, and the closing days were warm and fine. Thirty-nine hours of sunshine were registered.—*Derby, Elvaston.* Very wintry and cold until the 17th; generally mild and very dry afterwards. Fifteen frosty nights.

VIII. *Liverpool, Walton-on-the-Hill.* At the commencement of the month the weather was bitterly cold, raw and unsettled with quantities of S and sleet, freezing and thawing in rapid succession. Towards the end, however, the prospects brightened up, and some quite warm weather was experienced during the last few days.—*Garstang, Calder Mount.* R 1·34 in. below the average of 10 years.

IX. *York, Cherry Hill.* R ·41 in. above the average of 38 years.—*Wetwang.* The ground was frozen hard; roads, turnip fields, and

grass lands were covered with a sheet of ice. On the thaw setting in, rivers and floods appeared in the dry chalk valleys, the water being unable to penetrate the soil.—*Scarborough.* There was a good deal of S and cold in the first half of the month, but the latter part was especially fine and mild.—*East Layton* [*Darlington*]. The frost continued to hold its own for nearly three weeks, and up to the 10th there was an almost daily addition to the covering of S; from 7th to 13th thick mists prevailed, and on 20th a gradual thaw set in. —*Bowes.* S and frost during the early part; thaw set in on the 19th, and very mild, spring-like weather followed.

X. *Barnard Castle, Whorlton.* Very cold until 19th; then warm and fine.—*Uldale Rectory.* Great and sudden changes occurred nearly every day up to 19th, when the weather became milder, and during the remainder of the month it was, for the most part, singularly fine and pleasant and free from fog.—*Shap.* A very unsettled month, with high winds at the close.

XI. *Douglas, Victoria Road.* The very wet and cold weather which characterised December was (with some bright frosty intervals) maintained till January 20th. The remainder of the month was mild and springlike, the average temp. of the last week exceeding 45°; some 6° above the average.

XII. *Melrose.* The first three weeks were very wintry, the frost being occasionally very keen, and although the S never was very deep, the roads were in a very bad state with ice, and field work was suspended until the 19th. After that date a succession of gales occurred with higher temp. and very little R. Mean temp. 0°·5 above average; R 1·92 in. below average; prevailing winds S. and W.

XIII. *Selkirk, The Hangingshaw.* On the whole a beautiful month; frosty with bright sunshine as a rule for the first 19 days; mild, springlike, sunny weather for the last 10 days.

XVI. *Dollar.* Frost and S prevailed in the beginning of the month; mild and fine weather towards the close.—*Balquhidder, Stronvar.* The first half cold with S and ice on the ground, no out-door feeding for sheep; the latter half very mild but wet.—*Coupar Angus.* Mean temp. (35°·1) 7° higher than that of the preceding month, owing to the unseasonably high temp. of the last week.— *Dunkeld H.R.S.* An exceedingly stormy month throughout.

XVIII. *Loch Shiel, Glenaladale.* First half very cold and wintry, succeeded by mild, wet weather until the last two days, when the

temp. fell. Much wind during the last ten days, but nothing violent.

XIX. *Watten H.R.S.* For the first three weeks frost was almost continuous, sometimes severe, with gales; the last week was fine, fresh, and windy.

XX. *Sixmilebridge, Kilkishen.* The early part of the month was frosty; the last ten days were very warm.—*Broadford, Hurdlestown.* The month was very mild, except the first four days, and very favourable on the whole. Though there were a large number of days with R, the fall was not large on any day except the 31st.—*Miltown Malbay.* Generally wet, there being only five days without R. The first half very stormy, inclement and bitterly cold; the second half drizzling and showery. Very little frost or S.

XXI. *Edgeworthstown, Currygrane.* Unusually severe weather prevailed, with a good deal of S accompanied by high winds.

XXII. *Ballinamore, Lawderdale.* The early part of the month was harsh and severe, the latter part fairly mild.

XXIII. *Belfast, New Barnsley.* The first ten days were characterised by severe frost; the last ten days were very fine, like early spring.

FEBRUARY.

I. *Lansdowne Crescent, W.* Extremely dry; total R ·57 in.; excepting July, 1885, the smallest fall during six years. Cold till the 19th, then mild till the end.—*Muswell Hill.* R less than one-third of the average of 15 years, and the smallest in February during that period with one exception.—*Finchley, Etchingham Park.* A very dry month, with R on only six days, and with 13 consecutive dry days from 4th to 16th.

II. *Dorking, Abinger.* The fine weather of this month was most welcome, especially after the S and bad weather of January, and allowed arrears of work on the land to be made up.—*Wallington.* A bright but very cold month, with much frost. 96 hours of bright sunshine were recorded. R 1·83 in. below the average of five years. —*Wrotham, The Elms.* A wonderfully dry month, falsifying the old saying about "February fill dyke." Most of the nights were frosty, just enough to keep fruit trees and other things in a wholesome degree of backwardness. Pressure very high.

III. *Broxbourne.* A cold, dry month, with fog nearly every day; pressure high.—*Great Berkhampstead.* The driest February for 24

years, with great prevalence of N.E. winds. Mean daily duration of sunshine four hours.—*Buntingford, Throcking Rectory.* A particularly dry month, no R falling between 4th and 16th, or after 20th, when a partial drought occurred, the fall during 30 days being ·23 in. R 1·07 in. below the eight-year average. Mean temp. 0°·5 below the average.—*Banbury, Bloxham.* The month was remarkable for the small R (·70 in.) and for the favourable character of the weather for agricultural pursuits.—*Northampton.* R 1·28 in. below the average of 21 years. Cold, with N.E. or S.E. wind during great part of the month; warmer on 24th and 25th, followed by extreme cold on the last three days.

IV. *Harlow, Sheering.* R 1·35 in. below the average of 20 years.—*Ipswich, Bishop's Hill.* A remarkably fine, dry and bright month, with frosty nights and foggy mornings. R only just over a third of the average.—*Woodbridge, Melton.* Very cold, but with a good deal of sun, giving an exceptionally good seed bed for barley.—*Weybread Vicarage.* Not a single warm day; frost on 23 nights, bitterly cold, with high wind from 9th to 14th.—*Diss.* No "February fill-dyke" this year! The remarkably small R (·55 in.) fell in pretty equal quantities on four days. The month began with squalls and heavy gales, but on the 5th bright fine weather set in and continued with little interruption till the 23rd, when it blew violently from the S.W. The concluding days were fine, with the exception of a rather heavy fog on the morning of the 27th. The nights were very cold throughout. Public health decidedly good.

V. *Calne, Compton Bassett.* The first five days were showery and windy, the next twelve frosty and bitterly cold, the remainder bright and sunny with passing showers.—*Torquay, Babbacombe.* A cold, very dry month, with high pressure. R and number of wet days less than in any of the ten previous Februarys, or in any month since July, 1885. No R was measured in the 13 days ending on 16th. The min. air temp. (21°·6) was the lowest, the range of temp. (31°·9) the greatest, the number of grass frosts (23) the greatest, and the relative humidity the least observed in February. Mean temp. 1°·7, humidity 5 per cent., and R 2·94 in. or 80 per cent. below the average. The total range of temp. was 6°·6 above the average. It was warm from 3rd to 5th and from 23rd to 25th, but cold from 7th to 17th. S.W. to N.W. winds prevailed on 12 days, and E. to N.E. on 12 days. Vegetation was very backward.—*Ashburton, Holne.* R 6·64 in. below the average of six years.—*Temple*

Combe, Stowell. Unusually dry; low temp. prevailed from 6th to 16th, when warmer weather set in and continued till nearly the close.—*Wells, Westbury.* Such a dry February (R ·46 in.) has not been known for many years, though it is a curious coincidence that only ·59 in. of R was registered for the same month in 1886, while in 1885 the fall was 2·69 in. Cold N.E. winds prevailed throughout.

VI. *Cirencester, Further Barton.* Dry and cold, with much frost and many fine days.—*Gloucester, Lower Barton Street.* Unusually dry; R only ·53 in.—*Ross, The Graig.* R ·40 in., the smallest amount recorded for February in this district, as far back as 1818 at any rate. There was much bright weather, with great radiation and range of temperature, and much, though not very severe frost.—*Burton, Derby Road.* Warm and fine almost throughout, R 1·80 in. below the average.

VII. *Melton Mowbray, Coston.* Very dry with high pressure. The nights were cold throughout, especially during the prevalence of N.E. wind, from 6th to 16th, when the days were also cold; but many days both at the beginning and at the end of the month were remarkably fine and warm.—*Ketton Hall [Stamford].* Dry with low temperature, and mostly bright, the 16th, 26th and 27th very clear; pressure high; wind N.E. from 9th to 17th.—*Horncastle, Bucknall.* During the 40 days ending February 28th, there were only five days on which R fell, and the weather during the last 26 days was extremely fine and dry, with the smallest amount of cloud registered in any winter month during 20 years.—*Southwell, Oxton.* A very dry, bright month; R being 1·30 in. below the average. Only seven wet days.—*Mansfield.* A fine, dry month with cold frosty nights, and very little S or high wind; pressure generally very high. The month ended with bright spring weather. The driest February recorded here; the R being 1·87 in. below the average of 17 years.—*Worksop, Hodsock Priory.* A very fine, dry month with very high pressure, frosty mornings and fine bright days, large daily range of temperature, very small R, and considerable excess of sunshine. Very favourable for farm work. 103 hours of sunshine recorded.—*Elvaston.* A very dry month; very little R after the 2nd. Nineteen frosty nights.

VIII. *Macclesfield.* Except the first five days, a very clear and dry month, the latter part being very fine.—*Liverpool, Walton-on-the-Hill.* Generally fine and quiet, with R about 1·50 in. below the average.

IX. *Wakefield, Stanley Vicarage.* Very dry, the latter part being

most favourable for farming operations.—*York, Cherry Hill.* R 1·08 in. below the average of 38 years.—*Scarborough.* On the whole remarkably fine and bright, with 13 days of almost clear sky, and no violent gales. Temperature below 32° on eight days, but only once below 30°. S only on 2nd.—*East Layton* [*Darlington*]. A grand month; fine, still weather with a good amount of sunshine and not too high temperature. The ground drier than for several years.

X. *Barnard Castle, Whorlton.* Very cold until the last few days.—*Kendal, Longsleddale.* A very dry month, with a great deal of frost. *Uldale Rectory.* A somewhat remarkable month; R fell on eight days, but there was not a single trace of S. Pressure very high for many days.—*Shap, Copy Hill.* A very fine winter month, the latter part dry with brisk winds, and the last day warm, and more like May than February.

XI. *Llanfrechfa Grange.* Colder than usual, with sharp night frosts, cold winds, and very little R. Vegetation very backward.—*Swansea, Sketty.* The driest February for many years; 19 rainless days.—*Castle Malgwyn* [*Llechryd*]. Very fine, with many days very warm for the time of year.—*Douglas, Victoria Road.* Fine and dry, with a remarkable absence of gales. Vegetation forward.

XII. *Melrose.* The finest February for a great many years. Mean temp. 1°·3 above the average; R 1·76 in. below average. Wind S. and W. on 24 days. Gales on 6 days.

XIII. *Selkirk, The Hangingshaw.* Mild, fine, and unusually dry and warm; somewhat windy in the last fortnight.

XVI. *Coupar Angus.* R below the average. Very mild, both day and night, after 11th. Frost on 13 nights. Prevailing wind S.W.

XVIII. *Loch Shiel, Glenaladale.* A fine, mild month on the whole, though in the second half there were eight days of very wet, stormy weather. Vegetation very forward.

XIX. *Watten H.R.S.* Exceptionally fine; dry, fresh and open, with high winds.

XX. *Dunmanway, Coolkelure.* Unusually dry, mild and fine; very favourable for agricultural work.—*Tralee, Castlemorris.* Cool, cloudy and rainy throughout, with some sunshine; frosty from 10th till 16th. The earlier part of the last week was unusually breezy, high winds prevailing especially at night.—*Tipperary.* Very dry and fine.—*Derrycastle* [*Killaloe*]. The finest and driest February since 1879. On three days only was there R of the proverbial "fill the dyke" character. The closing week was exceptionally favourable for tillage

operations..—*Nenagh, Castle Lough.* Fine on the whole, the shade temp. frequently rising to 53°; comparatively little cold wind.—*Newcastle West.* A splendid month; spring work in full swing towards the close.—*Kilkishen.* A dry month for "February fill the dyke," and warm from the 17th to the close.—*Broadford, Hurdlestown.* A very fine month; dry and cold; very good for farming operations of every kind. High winds on many days.—*Miltown Malbay.* By no means a wet February on this coast, though rather stormy in the early part and near the end. Light frosts prevailed in the middle of the month. The four last days were wild and stormy, but greatly dried the soil.

XXI. *Gorey, Courtown.* Very mild and dull, with no frost.—*Graigue, Brandondale.* The small amount of R in February (·96 in.) was very remarkable, it being generally one of the wettest months in the year.—*Edgeworthstown, Currygrane.* On the whole a dry, pleasant month, very suitable weather for farming operations prevailing, especially from 5th to 14th.

XXII. *Clifden, Kylemore.* Remarkably fine, and free from heavy R.—*Ballinamore, Lawderdale.* A fairly seasonable month.

XXIII. *Belfast, New Barnsley.* From the 3rd to the 16th, and from the 24th to the end, glorious spring weather prevailed; from 17th to 23rd occasional storms and showers. Vegetation was starting and birds were singing at the close.

MARCH.

I. *Lansdowne Crescent, W.* Very cold, with frequent S, until 22nd, remaining days mild. Frost in shade on 15 nights. N.W. and N.E. winds very prevalent.—*Muswell Hill.* R about 5 per cent. above the average of 15 years.—*Finchley, Etchingham Park.* The first 11 days were generally dry; on the 12th the weather completely changed, and first R and then S fell before 9 a.m.; this was followed by a heavy fall of S on 15th. R fell daily from 21st to 27th, heavy showers on 31st, and heavy S between 7.30 and 9 a.m. on April 1st.

II. *Dorking, Abinger.* A cold but rather dry month; S storms frequent and little indication of growth.—*Wallington.* A very cold, dreary month, everything in the gardens and fields being in a most backward state as, until the last 10 days, it was impossible to work the ground owing to the frost. R ·63 in. above the average of five years. 134 hours of sunshine were recorded; there were four days

on which the sun did not shine.—*Keston Tower.* Calm, foggy weather prevailed during the first half of the month, and the greater part was very cold, with almost continuous frost up to the 22nd. Vegetation very backward.—*Littlehampton.* Very cold with much frost, and consequently no growth.—*Alresford, Arle-Bury.* Frost on 27 nights.

III. *Great Berkhampstead.* The middle ten days were very cold, with frequent falls of S, the ground being covered to a depth of 5 inches on 15th.—*Buntingford, Throcking Rectory.* A cold month, with frequent S showers and easterly winds. R ·20 in. above the eight-year average. Mean temp. 2°·8 below the average.—*Banbury, Blarham.* The month generally was very cold and gloomy. Owing to the moderate amount of R, great progress was made with spring sowing and other farm work. Vegetation was very backward and pastures presenting a white and seared appearance.—*Northampton.* March came in like a lion. R ·11 in. below the average of 21 years. March dust was absent until the last day.

IV. *Harlow, Sheering.* R ·42 in. below the average of 20 years.—*Ipswich, Bishop's Hill.* On the whole a seasonable month; R just the average.—*Weybread Vicarage.* A cold, dry month, with a good deal of wind; very few spring flowers out and no fruit blossom.—*Diss.* March commenced with two brilliant days, succeeded by two foggy ones. Then set in a run of very cold weather, with N.E. winds and a heavy S storm on 11th, and S on 12th, 13th, 17th and 18th. From 22nd to 27th the R was considerable, with much wind. In the last week there were some bright, warm days, but on the 31st there was a very heavy S storm with gale at night. In spite of fogs, S and wind, however, there was a more than average amount of bright sunshine, but spring was very late and there were no wild flowers. Pneumonia bronchitis were prevalent and fatal. The lambing season was good. and and young crops looked well, but evergreens had suffered much from the frosts, the nights having been extremely cold, the temp. falling as low as 18° on more than one occasion in the middle of the month.

V. *Calne, Compton Bassett.* Stormy with frost and S; altogether a harsh, cold and inclement month.—*Torquay, Babbacombe.* A dry and very cold month, with high pressure. R 1·22 in. below the average. No R fell on the first nine days, it was showery from 10th to 16th, and 19th to 27th. Mean temp. 3°·4 below the average; the coldest month since February 1886; cold till 21st, warm after. E.N.E. winds prevailed on 12 days, variable on nine. S on six days, H on six, fog

on five, solar halos on three days. Vegetation backward, pastures bare.—*Ashburton, Holne Vic.* R 2·33 in. below the average of six years.

VI. *Cirencester, Further Barton.* A very winterly month. For the first ten days severe frost with frequent fogs prevailed, though the days were often serene and sunny, and favourable for agriculture. This was succeeded by S storms, but no rise of temperature took place until after the 21st, when the wind changed from N. or E. to S.W., and brought milder weather, with wind and R for a few days. —*Ross, The Graig.* The first three weeks were very cold, and from 14th to 21st was very snowy. Vegetation was very backward at the close, though the R and warmer temperature of the last ten days caused a considerable start in vegetable life. Only ·61 in. of R fell in the 50 days ending March 10th.—*Burton, Derby Road.* Dull and cold, R ·67 in. below the average.—*Burton, Hoar Cross.* The early and latter parts of the month were very open and bright; but severe frosts characterized the middle of the month.

VII. *Melton Mowbray, Coston.* Very cold with the exception of one or two days; temp. lower than that of February; the latter part showery; concluding with a gale.—*Ketton Hall* [*Stamford*]. A cold, wintry month with very little sunshine, and wind generally northerly. *Horncastle, Bucknall.* Mean temp. about 4° below average; exceedingly severe from 13th to 20th, the temp. falling from 22° to 25° every night.—*Southwell, Oxton.* Temperature 3°, and rainfall about ·25 in. below the average; 2½ in. of S fell on 11th.—*Mansfield.* R ·16 in. below the average. Heavy fogs prevailed during the first week. S lay on the ground from 11th to 23rd. A spell of unusually dry weather prevailed from February 3rd to March 9th, only ·26 in. of R falling.—*Worksop, Hodsock Priory.* A cold, dry month of average sunshine; mean temp. rather lower than in February; vegetation very late.—*Elvaston.* A cold month. Dry generally, with very little wind until the 22nd, afterwards very rough and rather stormy. Seventeen frosty nights.

VIII. *Frodsham, Dunsdale.* Very variable weather, though always cold; not much R, more sunshine than usual, and several severe gales. Prevailing winds, E and N.E.—*Liverpool, Walton-on-the-Hill.* Cold throughout; R below the average.

IX. *York, Cherry Hill.* R ·35 in. below the average of 38 years.—*Scarborough.* March came in very bright and springlike, but became cold and wintry on the 10th, and continued so till the 22nd, though

bright sunshine intervened between S and R showers on most days, the wind was mostly light. Vegetation backward. S fell on 12 days.

X. *Barnard Castle, Whorlton.* The chief characteristic of the month was hard frost, but the last three days were fine and warm.—*Longsleddale.* Very dry, cold and severe.—*Uldale Rectory.* A month remarkable for the almost total absence of the usual vernal winds and breezes, and the small amount of R. But for the S which fell on the 11th, and remained on the ground for nearly a week, it would have been an exceptionally pleasant month.—*Shap, Copy Hill.* March came in like a lamb, and continued fine till the afternoon of the 11th, when a little S fell, and during the night nearly six inches; the 12th was warm, with keen frost at night. Towards the end of the month the weather was rather unsettled, but seasonable.

XI. *Llanfrechfa Grange.* Very sharp frosts prevailed from 12th to 20th, but there was a good deal of warm sunshine during the last fortnight.—*Castle Malgwyn* [*Llechryd*]. A nice dry month, with a rather large amount of frost.—*Douglas, Victoria Road.* A fine, dry, but very cold month, with a large percentage of bright sunshine and (excepting the strong N.N.W. winds of the last week) singularly calm. Apart from the low temperature, the weather was unusually fine and bright. S fell on 7 days. The grass min. fell as low as 12°.

XII. *Melrose.* The month opened with unusually fine weather, and farmers began sowing; but a change took place on the 9th, when S falls and hard frost set in, lasting until the 24th, when the S disappeared rapidly, leaving the land in fine condition. Mean temp. 0°·6 above the average, R 1·64 in. below the average. Wind S. and W. on 28 days; S or sleet on 11 days.

XVI. *Dollar.* Dry and fine at the beginning; S in the middle; fine and dry towards the end.—*Balquhidder, Stronvar.* A good deal of sunshine, and R much below the average, but temperature was very variable.—*Coupar Angus.* A month of small R, with cold nights and sunny days and great range of temperature. For the first five days the temperature was very high; from the 10th for a week it was very low; but on the 26th a rise occurred.—*Dalnaspidal H.R.S.* Fog and S prevailed almost throughout.

XVIII. *Loch Shiel, Glenaladale.* The first eight days were beautiful, followed by a heavy S storm with much drift and hard frost; gentle favourable thaws succeeded, and the last week was fine. The general character of the month was calm.—*Drumnadrochit.* The month

opened with pleasant, springlike weather, vegetation making rapid progress, but a sharp storm on the 10th, with very keen frost, did much damage.

XIX. *Watten H.R.S.* Unprecedentedly dry. The first ten days were dry, mild and fine; S with severe frosts occurred in the middle of the month, and the latter part was cold with high winds, reaching the force of a gale on 27th and 31st, and very dry.

XX. *Dunmanway, Coolkelure.* An unusually dry month; very fine for agricultural work. Cold and rough E. winds were rather prevalent.—*Killarney, Woodlawn.* Very dry, anti-cyclonic conditions prevailing for nearly three weeks. There were 21 days without R. Wasps, bees and butterflies appeared, and thorn and gooseberry put forth their leaves.—*Derrycastle* [*Killaloe*]. The finest March for nine years, the weather being beautifully fine except one week (from 21st to 27th), which was harsh, and at times bitterly severe. Splendid weather for tillage operations, but the biting winds and frosty nights were unfavourable for vegetation.—*Nenagh, Castle Lough.* A cold, dry month, very frosty about the middle. The last 3 or 4 days were fine and comparatively warm.—*Newcastle West.* An exceptionally fine month, especially for tillage. Splendid dry weather till 10th, with no strong winds; frost in the middle of the month; fine dry weather again at the close.—*Kilkishen.* A dry month, with warm days and cold nights; temperature fell below 32° on 14 days.—*Broadford, Hurdlestown.* Very fine, but cold; farm work much advanced. Many wells became dry in the west of the county, and people were very badly off for water there.—*Miltown Malbay.* March opened with fine sunny weather, which continued to the 20th, with occasional slight frosts, and from the 15th to the 20th very sharp frost; a week of most trying weather followed with storms, S, H and R. The last few days were fine, mild and warm, and then the month went out in an icy N.E. gale. The finest and driest March for more than a dozen years.

XXI. *Edgeworthstown, Currygrane.* The driest March since observations commenced in 1879; extremely favourable for farming operations.

XXII. *Ballinamore, Lawderdale.* The early part of the month was mild and genial, the remainder cold; on the whole a dry month.

XXIII. *Belfast, New Barnsley.* A very fine open month; March dust plentiful; land in grand condition.

APRIL.

I. *Lansdowne Crescent, W.* A cold, dry month, northerly winds predominating. The coldest April since 1879. No R fell from 5th to 22nd.—*Muswell Hill.* R not quite three-fifths of the average of 15 years. There was a dry period from 6th to 21st inclusive, while during the week that followed R fell daily.

II. *Wallington.* The first part of the month was cold and dry, and vegetation made no progress until the warmth and R of the last 10 days. R slightly above the average of five years. 202 hours of sunshine were recorded.—*Hythe.* A very ungenial month, with strong, cutting winds throughout. Vegetation made little progress. —*Wrotham, The Elms.* The month was cold, but with some few genial days. Vegetation was much retarded by the cold, easterly winds and by the severe frosts, which were very frequent. R was much needed towards the close in many districts, and wells and ponds were beginning to fail on the Wrotham Hills about 600 ft. above sea level.—*Keston Tower.* Very cold throughout, with a good deal of E. wind but an average amount of R. Vegetation very backward.—*Littlehampton.* The coldest and driest April yet recorded here. April showers were absent; few birds were seen or heard; no growth of vegetation occurred.—*Emsworth, Redlands.* Rough and cold, with strong winds and hard frosts.

III. *Broxbourne.* Cold winds throughout; N.E. on 16 days, and almost as cold N.W. and S.W. on 13 days; only one day, the 21st, was really warm.—*Great Berkhampstead.* Several unusually sharp frosts occurred in the middle of the month. Average daily duration of sunshine, six hours.—*Buntingford, Throcking Rectory.* A cold month, S covering the ground on 1st. R ·56 in. below the eight-year average. Mean temp. 2°·3 below the average, and the coldest April in eight years. The rainfall for the first 20 days was only ·07 in.—*Oxford. St. Giles'.* Spring was conspicuous by its absence. There were no signs of leaf on elm or plane trees at the close of April. Night temp. was only twice above 40°; the mean min. temp. was 34°·8 and the mean temp. 45°·4.—*Banbury, Bloxham.* With the exception of about 10 days, the month was very gloomy and cold; from 5th to 22nd, a period of 17 days, no R fell. Vegetation was extremely backward at the close and the pastures were quite bare, but spring sowing had been completed and all farm work was in a forward state.

IV. *Harlow, Sheering.* R ·78 in. below the average of 20 years.—

Ipswich, Bishop's Hill. Cold and dry ; R ·33 in. below the average.—*Diss.* A cold month, particularly at night, but with much bright sunshine and some very lovely weather, especially the third week. Spring was unusually late, hardly a wild flower being seen or any green being visible in the hedgerows till after the middle of the month. The young crops improved greatly after the R, but were still very backward at the close.

V. *Calne, Compton Bassett.* Very old and dry, with parching sun and high wind till the 20th, then cloudy and showery to the end.—*Torquay, Babbacombe.* A very, cold, dry, fine month with rather high pressure. With the exception of ·05 in. on the 5th, no R fell till the 21st, from which date it was showery till the 28th. R 1·47 in., or 56 per cent. below the average. Mean temp. 2°·5 below the average, and the lowest for April since 1879 ; the mean and absolute min. in air and on grass were the lowest, the humidity and mean amount of cloud were the least, and the number of frosts on grass was the greatest observed in April since observations began in 1876. N.E. winds prevailed on 11 days, variable on ten, S.W. to W. on seven, and N. on two days. Vegetation very backward.—*Ashburton, Holne.* R 2·45 in. below the average of six years.—*Truro, Moresk House.* The smallest R, and number of wet days ever recorded in Cornwall. After such a dry February and March, the springs and rivers were very low. The Truro Flour Mills had not had so little water for more than 20 years. The frosts of the last week cut down potatoes. Elm, apple and other trees looked as they did at Christmas, and there was no grass for sheep and cattle.—*Temple Combe, Stowell.* A remarkably cold, dry month.

VI. *Cheadle, The Heath House.* A very cold month with frost nearly every night, and very cold winds throughout. A good month for getting seed sown, but vegetation was very backward, pastures being as bare at the close as at mid-winter.—*Cirencester, Further Barton.* Another cold month, remarkable for continued drought, the roads and hedges being often white with dust as in summer. The nights were frosty and the days sunny. After the 21st it was showery and changeable, but still cold. Prevailing winds N. and E. —*Burton, Derby Road.* Cold throughout. Scarcely any R fell during the first three weeks, and the 1·10 in. which fell afterwards still left the total ·80 in. below the average.

VII. *Melton Mowbray, Coston.* A very dry, cold month ; R much below the average there being only two really wet days.—*Ketton*

Hall [*Stamford*]. Very dry and changeable, only five days being altogether bright. Wind N. on 22 days. Very unfavourable for vegetation of all kinds.—*Horncastle, Bucknall.* Extremely cold throughout, except a warm day or two about the 18th. The W. wind was as cold as the E., and night frosts were frequent. Vegetation at the close was exceedingly backward.—*Mansfield.* Commencing with a cold, windy, showery day, April was a dry month, with a fair amount of sunny days, but cold frosty nights and N.E. winds keeping vegetation very backward. Welcome, but cold R, with S and H fell in the last week. R ·92 in. below the average; the fourth month of deficient R.—*Worksop, Hodsock Priory.* Colder than any of the preceding eleven Aprils, except 1879, and drier than any except 1881; brighter than any of the previous six. The nights were especially cold, and the daily range of temp. was large; the max. and the min. occurred on the same day. Vegetation very late.—*Elvaston.* A very dry month on the whole, particularly so until the 21st. Very cold, generally with strong winds. Ten frosty nights.

VIII. *Macclesfield.* The coldest April recorded here; mean temp. 4°·2 below the average. R less than 46 per cent. of the average of 30 years. Vegetation very late. Easterly winds prevailed from 1st to 20th.—*Frodsham, Dunsdale.* A remarkably cold, dry month. E., N.E., and S.E. winds prevailed during the greater part.—*Liverpool, Walton-on-the-Hill.* Very dry; R one inch below average. On the whole cold, but with a good deal of sunshine.

IX. *York, Cherry Hill.* R 1·17 in. below the average of 38 years. The driest April since 1875.—*Scarborough.* Much bright weather, but frequent slight R. Winds mostly cold. Vegetation very backward, retarded by drought and cold winds. R ·96 in. below the average of 21 years.—*East, Layton* [*Darlington*]. A very unfavourable month, with cold cutting winds. Vegetation made no progress. Temperature fell below 32° on 20 nights, a somewhat remarkable occurrence.

X. *Longsleddale.* Particularly dry, with keen searching winds.—*Uldale Rectory.* With the exception of 7 or 8 days the weather was very seasonable and agreeable; R much below the average. Vegetation backward, but the dry seed-time enabled farmers to clean their land thoroughly.—*Shap, Copy Hill.* Extremely dry in the early part, with cold E. winds and some hard frosts. The land was very dry, and water was scarce in many places. After the 20th very cold with heavy showers. Much S still on the mountains at the close.

XI. *Llanfrechfa Grange.* Temperature very low throughout with

cold E. winds. Vegetation backward, but the weather favourable for cultivation.—*Llandovery.* Cold and dry to 20th, then R or S daily to the close.—*Castle Malgwyn* [*Llechryd*]. Unusually dry ; everything at a standstill for want of R. Frost, too, was very severe, keeping things back and cutting fruit blossom.—*Llechryd, Fern Hill.* With the exception of ·15 in. on the 4th, no R fell until the 21st, and the weather was very fine with frost almost every night.—*Douglas, Victoria Road.* Another fine, bright, dry but cold month, with S on three days. All vegetation was very backward, hedges only breaking during the last week.

XII. *Melrose.* A very dry, cold month, with severe frosts and ice on pools on the morning of 30th. Mean temp. 2°·4, and R ·62 in. below the average. Vegetation was very backward, but the land was in fine working order.

XIII. *Edinburgh, Blacket Place.* Fine and dry for the first three weeks, during which only ·12 in. of R fell ; then wet and unsettled.

XVI. *Balquhidder, Stronvar.* There was a good deal of frost during the month, and the wind was very changeable, but there was much more sunshine than usual. Splendid weather for putting in the crops. Grass pretty well advanced at the close.—*Coupar Angus.* Cold nights, sunny days, little R and much frost.

XVIII. *Loch Shiel, Glenaladale.* A decidedly calm month ; during the dry weather (from 6th to 17th) very fine, with bright, hot sun and E. wind ; from 18th cold and dull, with sleety R and N. wind.—*Drumnadrochit.* Unusually cold ; vegetation very backward. From 6th to 14th very dry, with frosts and N.E. winds.

XIX. *Watten H.R.S.* The first three weeks were dry and cold, the last week was wet and cold ; frosty nights prevailed. The month was excellent for the down-lay of crops, and the needed moisture was opportune. The driest spring within the memory of the oldest inhabitant.

XX. *Dunmanway, Coolkelure.* Unusually dry, bright and cold, with E. winds and frost every night till 20th ; then the wind changed to W.N.W. with cold R. Vegetation almost at a standstill.—*Killarney, Woodlawn.* Both the beginning and the end were squally, and the mountains were topped with S.—*Derrycastle* [*Killaloe*]. A dry and very harsh month, with much H, S and sleet towards the close. Favourable for tillage operations, but vegetation very backward.—*Nenagh, Castle Lough.* The greater part of the month was dry, with sun by day and slight frosts at night ; vegetation much retarded.

H frequent during the latter part.—*Newcastle West.* Exceptionally dry and cold, with no R until 20th. From 1st to 14th E. wind was continuous, with frost at night; splendid weather for tillage. From 20th to 27th northerly winds with R, H and S.—*Kilkishen.* Very dry till the 20th; night temp. very low.—*Broadford, Hurdlestown.* A very cold month, and for the first three weeks very dry. Frost nearly every night. Water got very low in the streams and wells.—*Miltown Malbay.* A very dry, cold April; splendid for tillage, but the contrary for pastures. Frosts occurred on 15 nights after the 6th, and S, sleet and H showers fell continuously from the 20th to the 27th. The night frosts, with the parching E. winds and sun, destroyed all trace of vegetation. At the close the Kerry and Cork mountains were draped with S.

XXI. *Edgeworthstown, Currygrane.* A very severe month, with heavy H showers and night frosts, but very favourable for getting in the crops.

XXII. *Woodlawn.* A month of very little growth, with the exception of the last few days. Dry and parching with E. wind from 6th to 20th.—*Ballinamore, Lawderdale.* Very dry and harsh with night frosts.

XXIII. *Belfast, New Barnsley.* Very fine, but cold till 20th, then H showers, S and frost till 26th, then fine to the close. Vegetation very backward.

MAY.

I. *Lansdowne Crescent, W.* Very cold, especially in the latter part of the month. Wind constantly northerly. A very cloudy month. —*Muswell Hill.* R ·01 in. below the average of 15 years. Remarkable for the large number of days on which R fell (24), the falls being mostly small.—*Finchley, Etchingham Park.* Though the R was just about the average, the general character of the month was apparently decidedly wet, small amounts falling on many days.

II. *Dorking, Abinger.* On the whole a good month and free from frost; fruit trees exceptionally full of blossom.—*Wallington.* Dull and cool with R 1·09 in. below the average of five years. The weather was favourable for all outdoor occupations and for fruit trees. 151 hours of sunshine were recorded. On three days the sun did not shine.—*Keston Tower.* An extraordinarily cold May, with light N winds. Fruit of all kinds promising well.—*Littlehampton.* Extremely

dry with cold nights; very little growth, vegetation some three weeks backward at the close. Wind N. nearly all the month.

III. *Broxbourne.* Very cold and wet throughout, with only two really genial days, the 9th and 10th.—*Great Berkhampstead.* First half very dry; frequent and heavy R during the latter half.—*Buntingford, Throcking Rectory.* An unsettled month, with low temperature. R ·42 in. above the eight-year average. Mean temp. 2°·4 below the average, and with May, 1885, the lowest in eight years.—*Banbury, Bloxham.* Cold and gloomy, with only five genial days. From the 19th to the close the weather was disagreeable, with scarcely a ray of sunshine. There was only one frost.—*Northampton.* A cold month, with N.E. winds. R ·56 in. above the average. Vegetation much behindhand.—*Cambridge, Beech House.* Mean temp. 2°·6 below the average of 17 years.

IV. *Harlow, Sheering.* R ·58 in. above the average of 20 years.—*Ipswich, Bishop's Hill.* Continuous cold, with N. and N.E. winds. R ·31 in. below the average. Vegetation very backward.—*Woodbridge, Melton.* Many frosts and generally low temperature; vegetation three weeks backward.—*Diss.* A decidedly cold May, with rather large R. Spring very backward, but crops and gardens greatly improved towards the close and grass was growing apace.

V. *Salisbury, Alderbury.* Unusually and persistently cold; vegetation very backward.—*Torquay, Babbacombe.* Cold and changeable, with rather high pressure. R ·66 in. below the average. Generally showery and dull (with a few fine days interspersed) from 2nd to 6th, and 18th to 31st, but fine and dry from 7th to 16th. Mean humidity 1, and mean amount of cloud 0·7 above, and mean temp. 1°·3 below the average. The temp. in sun was lower than in any of the previous ten Mays. Wind N.E. on 14 days, N.W. on nine. Solar halos on seven days; fog on three days.—*Temple Combe, Stowell.* A dull month; vegetation backward; the only really growing week was from 2nd to 9th. Mean temp. about 3° below average.

VI. *Cirencester, Further Barton.* Cold almost throughout, with N. or E. wind. Little R fell from 5th to 18th. Everything very backward.—*Ross, The Graig.* Very cold and ungenial, though not quite so much so as May 1879. The first few days were wet; from 4th to 16th, principally fine; 17th to 31st, wet and unseasonable. Vegetation at the close was very backward, probably as much so as in any year since 1837.—*Burton, Derby Road.* Very cold, R ·80 in. below the average.—*Cheadle, The Heath House.* Very cold with cutting E. and N.E. winds. and frosts throughout. Vegetation very much behind.

VII. *Melton Mowbray, Coston.* A very cold, wet month ; vegetation very backward.—*Ketton Hall* [*Stamford*]. Cold and very dull. Wind from a northerly direction on 27 days. Vegetation very backward. —*Horncastle, Bucknall.* Exceedingly cold throughout, R below the average.—*Southwell, Oxton.* A dry month, though the number of rainy days was large. Temperature about 2° below the average. Bright sunshine much less than usual. TS at noon, on 21st.— *Mansfield.* Dull and cold, with only four or five days with a fair amount of sunshine. The nights were cold, though temp. only once fell to 32°. Vegetation backward. R ·13 in. below the average.— *Worksop, Hodsock Priory.* Cold, dry and very dull, with a very large proportion of N. and N.E. winds. Vegetation unusually late, but a very favourable time for preparing the land for root crops. One hundred and nine hours of sunshine were recorded.—*Elvaston.* Cold, windy and very ungenial. Easterly winds prevalent. Vegetation very backward. One frosty night.

VIII. *Macclesfield.* Very cold, the third cold May in succession, and following a cold April, vegetation was very late. Temperature reached 60° or upwards only twice. Mean temp. 3°·7 below the average.

IX. *Wakefield, Stanley Vicarage.* A very cold month, yet grass and corn looked well, and fruit blossom was very abundant.—*York, Cherry Hill.* R ·11 in. below the average of 38 years.—*Scarborough.* Cold and ungenial, vegetation very backward.—*East Layton* [*Darlington*]. In the early days there was a cold E. wind, with slight showers. The middle of the month was droughty, and farmers were calling out for R. The close was marked by cold, damp winds. Crops looked well although grass was very backward.

X. *Uldale Rectory.* Unusually dry and cold, with remarkable absence of sunshine, notwithstanding which the promise of an abundant fruit crop was specially good.

XI. *Castle Malgwyn* [*Llechryd*]. Unusually dry, vegetation suffering severely.—*Douglas, Victoria Road.* Yet another bright, dry, cold month ; foliage still very backward. Polar winds prevailed throughout.

XII. *Melrose.* Cold and dry, everything very late. R 1·63 in. below the average ; mean temp. average. Frost on 15 nights. Wind N. and E. on 13 days ; S. and W. on 17 days.

XIII. *Edinburgh, Blacket Place.* A dry month. Of the total R, exactly half fell on 19th

XVI. *Dollar.* A dry month, with good weather in the early part and towards the close. A very good spring for agricultural pursuits. —*Balquhidder, Stronvar.* R very small and min. temp. low, but more sunshine than usual, and vegetation at least a fortnight early.—*Coupar Angus.* A very dry month, with only half the average number of wet days and about one-fourth of the average R. Frost on the first two nights.—*Dunkeld H.R.S.* Exceedingly dry, with hot sunshine by day and several sharp frosts at night.

XVIII. *Loch Shiel, Glenaladale.* A beautiful month throughout.—*Drumnadrochit.* Remarkably dry and cold; all young potato plants in the district nipped by frost. From the 22nd to the close excessively dry, with constant slight E. or N. winds and frost almost every night.

XIX. *Watten H.R.S.* A favourable month for vegetation, suitable rains falling. Cold, cloudy days, alternated with clear, fine ones. Northerly winds prevailed.

XX. *Dunmanway, Coolkelure.* Very dry. During the first three weeks the winds were principally easterly, and very little growth was made during that period; grass and corn were very backward. —*Derrycastle* [*Killaloe*]. A dry month and warm in the daytime, though harsh up to the 15th, as the nights were chilly with frequent frosts. R fell daily from 17th to 22nd; then warm weather with good growth continued to the close. R the smallest in May since observations commenced in 1879.—*Nenagh, Castle Lough.* Very dry with N. and E. winds; the days chiefly fine with bright sunshine and the nights cool.—*Broadford, Hurdlestown.* Very fine and favourable for all kinds of farm work. All rivers and lakes very low.—*Miltown Malbay.* Generally cold and dry with little R. Vegetation scanty and backward.

XXII. *Ballinamore, Lawderdale.* Very dry and hot.

XXIII. *Belfast, New Barnsley.* Variable throughout; from 17th to 22nd cold and stormy with S and H showers, more like March than May; from 23rd to the end fine and dry; R much wanted.

JUNE.

I. *Lansdowne Crescent, W.* Heavy R (1·09 in.) on the 2nd and 3rd, after which only ·06 in. during the remaining 27 days. Weather bright and warm. The warmest June since 1877.—*Muswell Hill.* R (·83 in.) less than a third of the average of 15 years during which

period a smaller amount has been twice recorded in June, viz., ·52 in. in 1877, and ·65 in. in 1866. In both these months, however, R fell on eight days, and there has been no previous month recorded here in which, as in this month, R fell on only three days.—*Finchley, Etchingham Park.* A most extraordinarily dry month; R ·85 in. only.

II. *Dorking, Abinger.* A good R occurred early in the month after which the weather varied little, being dry throughout, with E. and N.E. winds. R greatly needed at the close.—*Wallington.* R ·59 in. below the average of five years. The want of R was becoming rather severely felt at the close. The weather, however, was favourable for the hay crop which was light. There were not many insects. Two hundred and sixty hours of sunshine were recorded.—*Hythe.* Remarkably fine and dry, with R on 2nd and 3rd only.—*Keston Tower.* Wet on only 2nd and 3rd, and very fine throughout the rest of the month. There was some hot weather about the middle, but it was generally cool, with northerly winds. The country was suffering much from drought at the close.—*Littlehampton.* The hottest June we have registered; yet, without R, plants flourished and seeds germinated. Potatoes and hay only yielded half the usual crop. All vegetation backward. Insects scarce.—*Emsworth, Redlands.* Great heat set in on the 13th, continuing to the close with severe drought. Prevailing winds N. to E. Green fly and blight were very abundant. Hay harvest began about the 18th.

III. *Broxbourne.* Hot days and cold nights throughout; R much wanted at the close.—*Great Berkhampstead.* The driest June for 17 years. During the fortnight ending 23rd, the sun was shining, on an average, over 12 hours a day.—*Throcking Rectory.* A bright hot month, the whole rainfall for the month occurring on the first three days, after which an absolute drought of 30 days set in. R 1·02 in. below the eight-year average. Mean temp. 1°·9 above the average, and the warmest June in eight years.—*Banbury, Bloxham.* On the first three days heavy R fell, partially flooding the meadows. The remainder of the month was remarkable for the entire absence of R and the long continuance of fine and brilliant weather. Towards the end of the month the drought began to affect vegetation injuriously.—*Northampton.* R ·87 in. below the average of 21 years. N.E. winds prevailed in the early part of the month. Trees were very much behindhand. Haymaking began on 22nd.

IV. *Harlow, Sheering.* R 2·12 in. below the average of 20 years.—

Ipswich, Bishop's Hill. R (·44 in.) 1·61 in. below the average. In June, 1877, the fall was ·69 in., and in 1878 ·63 in. Not a shower fell after the first week.—*Weybread Vicarage.* Remarkable for continued drought; no R fell from the 3rd of this to the 3rd of the following month. Scarcely any high wind, and much bright sunshine.—*Diss.* A month of brilliant weather, the sun's heat being much tempered by cool winds, and the nights throughout frequently cold. Northerly winds prevailed during the latter half. The extreme smallness of the R (only ·28 in.) was beginning to tell on the young crops, especially roots, at the close. The grass crop was not large, but the haysel was perfect.—*Swaffham.* R ·11 in.; the smallest monthly total in 9 years.

V. *Torquay, Babbacombe.* Very dry, fine and hot, with high pressure. The R, number of wet days and mean amount of cloud were the least, and the daily range of temp. on the 27th (32°·5) was the greatest, observed in any month since observations began in August, 1876. The mean and max. of both pressure and temp. were higher than any observed in the previous ten Junes. R ·11 in., the least monthly fall yet observed, and 1·95 in. below the average. It was cloudy, showery, damp and foggy till the 8th, but very fine and dry afterwards. Grass was much burnt, and some wells and springs were failing at the close. Variable winds on 14 days, N.E. on 11; solar halos on 4 days, and fog on 4.—*Ashburton, Holne.* R 3·02 in. below the average of 6 years.—*Teignmouth, Marine Villa.* R only ·03 in.—*Teignmouth, Woodway.* R only ·04 in. The smallest monthly fall previously recorded since observations commenced in January, 1871, was ·16 in. in July, 1885.—*Budleigh Salterton, East Budleigh.* R only ·05 in.—*Liskeard, Dean Terrace.* R ·12 in., on one day only.—*Bodmin, Fore Street.* Extremely dry; R only ·10 in.—*Temple Combe, Stowell.* A month of exceptional drought.—*Taunton, Lydeard House.* The most wonderfully dry month ever registered here, though the country was not so much burnt up as might have been expected. R only ·27 in.

VI. *Cirencester, Further Barton.* Remarkable for drought and cloudless skies. After the 24th for a day or two the early mornings were cool, with fog, which slightly refreshed the burnt pastures. The wind was almost continuously N. or E.—*Ross, The Graig.* After the heavy R of the 2nd and 3rd, brilliant, uninterruptedly fine weather prevailed throughout, with nearly cloudless skies and great radiation and evaporation, very similar to that of June, 1865. A

the close there had been 24 days of absolute drought, and 27 with only ·02 in. of R.—*Burton, Derby Road.* With the exception of the first 3 days, very hot and dry, R falling on only 4 days, leaving the total amount 1·60 in. below the average.—*Burton, Hoar Cross.* Very bright and exceedingly hot.

VII. *Melton Mowbray, Coston.* Very dry with the exception of the first three days. The hawthorns, laburnums, &c., came out with a sudden burst soon after the 11th, and quickly lost their beauty. The latter part of the month was very hot.—*Ketton Hall [Stamford].* Very dry and mostly bright, but not so hot as might have been expected. Wind northerly on 19 days. All crops wanted R badly. —*Horncastle, Bucknall.* Great drought prevailed throughout.—*Southwell, Oxton.* A very dry, sunny and warm month, probably the driest June since 1874, R fell on the first 3 days, and not again till July 4th. No such period of drought had occurred since 1870. Mean temp. 3°·5 above the average. On the 23rd 14·5 hours bright sunshine were recorded — 87 per cent. of the possible duration.— *Mansfield.* Cloudy with R on the first 3 days. The long wished-for sunshine commenced on the 4th, and it continued dry and warm to the end. The driest June in 18 years, absolute drought prevailing after the 3rd. R 2·34 in. below the average.—*Worksop, Hodsock Priory.* Warmer, drier and brighter than any June during recent years. Spring corn on light soil suffered much from drought. Duration of sunshine 219 hours.—*Elvaston.* Very fine; remarkable for heat. Absolute drought after the 3rd.

VIII. *Macclesfield.* R the smallest for June since 1874, being 2·45 in. below the average of 36 years, and only 27 per cent. of it. Reservoirs were very low, and vegetation was much parched.— *Frodsham, Dunsdale.* Remarkably hot and dry.—*Liverpool, Walton-on-the-Hill.* With the exception of two or three days at the commencement, the weather was beautifully fine and calm, without a drop of R.—*Cartmel, Broughton Hall.* R ·39 in., the driest month here for at least 19 years; on five other occasions only, in that period, was a month's R less than an inch.

IX. *York, Cherry Hill.* R only ·12 in.; 1·93 in. below the average of 38 years.—*Hull, Derringham.* The driest June since 1849, and with one exception the driest month since April, 1852, when only ·02 in. was registered.—*Cottingham.* The extreme dryness of this month (R ·02 in. on one day only) was the most remarkable feature of the year.—*Scarborough.* Remarkable for continuous drought and heat,

and for prevalence of brilliant sunshine. Vegetation was forced on in the middle of the month, but was suffering much from drought at the end. There was an extraordinary profusion of blossom of all kinds, both on fruit trees and in meadows.

X. *Barnard Castle, Whorlton.* A hot month with scarcely any R; wind frequently N.E.—*Morpeth, Bothalhaugh.* Very dry; the driest month recorded during ten years, except January, 1880.—*Rothbury, Cragside.* The driest month on record; R ·27 in.—*Cross Fell, Kirkland.* Gardens and fields suffered a good deal from drought. R ·40 in.—*Hutton Roof.* Exceptionally dry and hot. Vegetation on light soils suffered from drought. Hay crop light and straw short.—*Uldale Rectory.* The driest and hottest month remembered. With the exception of showers on 4th, 7th and 13th, no R fell, and drought seriously affected all crops.—*Shap, Copy Hill.* Very hot and dry. Hay crop light. Pasture land at the close was as brown in many places as if boiling water had run over the grass, and water was hardly to be got for cattle, most of the wells being dry.

XI. *Llanfrechfa Grange.* Hot and sultry for the most part, and too dry for fruit to swell. Grass rather short, but hay crop fair.—*Llandovery.* The driest month remembered, and temperature the highest registered.—*Castle Malgwyn* [*Llechryd*]. One of the driest months on record. Vegetation suffered severely, grass and other things being scorched up, and fruit not swelling and ripening. Water supply almost failed.—*Llechryd, Fern Hill.* Extremely hot; water becoming scarce.—*Douglas, Victoria Road.* A very dry month, the fifth in succession. R ·57 in., the smallest monthly fall recorded here. Cool and somewhat foggy weather prevailed from the 8th to the 15th, followed by an unbroken record of magnificent summer weather and bright sunshine. The mean temp. of the week ending 23rd was 9°·5, and that of the following week 10°·0 above the average. A max. temp. of 81°·0 was registered on the 25th, which is a value almost unknown here.

XII. *New Galloway, Glenlee.* Very warm and dry; pastures very much burnt up and water scarce.—*Melrose.* In many respects a memorable month, dry throughout, with exceedingly high temperature. R 1·87 in. below and mean temp. 1°·5 above the average.—*Edinburgh, Blacket Place.* Exceptionally dry and hot. R only ·35 in. on five days.

Balquhidder, Stronvar. The latter half of the month was warmer than for many years. Crops, though looking well at the close, were

beginning to suffer for want of R. Prevailing winds E. and N.—*Coupar Angus.* Great heat set in on 15th, and continued till the close; R ·49 in. Crops of every kind suffered severely from drought.—*Dunkeld H.R.S.* Excessively hot throughout, doing much damage to all vegetation.

XVIII. *Loch Shiel, Glenaladale.* Most beautiful summer weather prevailed throughout.—*Drumnadrochit.* Great heat characterized the month.

XIX. *Watten H.R.S.* The first half was fine, the latter half bright, hot, often sultry and very dry. The warmest June for years.

XX. *Dunmanway, Coolkelure.* Very fine, but very warm and dry. R much needed for roots and late meadows. Prevailing wind N.E. *Tipperary, Henry Street.* Very hot and very dry. R only ·25 in.—*Derrycastle* [*Killaloe*]. The driest month on record. After the 17th the heat was very great, with parching E. and N.E. winds and little dew at night, so that grass and crops in very heavy clays and light sandy soils were greatly burned up.—*Nenagh, Castle Lough.* The driest month registered here. Almost continuous warm, dry and bright weather and very hot for the last three weeks.—*Newcastle West.* Magnificent weather, though, even for Ireland, too hot. Towards the close cattle and crops suffered severely from the continued drought. *Kilkishen.* Very dry; wells and lakes very low at the close, grass in many places burned up and scarcity of water being felt.—*Hurdlestown, Broadford.* Remarkably dry. Water was very low, many small rivers being quite dry at the close. Meadows suffered much, and grass lands were quite burned up. Crops looked well, except corn. Some days were dreadfully hot.—*Miltown Malbay.* Remarkable beyond precedent, for lack of R, excessive heat and great drought. Most of the springs and wells dried up, and rivers and streams were running dry.

XXI. *Dublin, Phœnix Park.* The driest June in a record dating back to 1837.—*Edgeworthstown, Currygrane.* R ·17 in. Such a drought had not been experienced for a great number of years. The usual watercourses were completely dry, and also drains from fields which were never known to dry before. Luckily there were dews at night. Max. temp. 84°·0, the highest recorded here before being 80°·0.

XXII. *Woodlawn.* A month of exceptional dryness, with N.E. wind.—*Ballinamore, Lawderdale.* A most unusually dry and hot month. Most springs dried up, and rivers and lakes very low. It

was stated by the oldest people that such a month had not been known for 40 years.

XXIII. *Belfast, New Barnsley.* Exceptionally fine even for June, no R falling after the 8th, except a light shower on the 12th. All crops matured early. R was much wanted at the close for corn and root crops, though too late for flax and hay.

JULY.

I. *Lansdowne Crescent, W.* Remarkable for continuous bright, dry and warm weather. The hottest month during nine years. Temp. above 80° on eight days.—*Muswell Hill.* R only about 53 per cent. of the average of 15 years.

II. *Dorking, Abinger.* After lasting for seven weeks, the fine weather broke up on the 25th, but R was still needed at the close for root crops.—*Wallington.* R ·61 in. above the average of five years, owing to the violent TS of the 16th, excepting which, the month was dry and hot, and at the same time very sunny and bright. Fruit and garden produce poor. 317 hours of sunshine were recorded.—*Hythe.* Another very fine and dry month, with great want of R.—*Wrotham, The Elms.* Want of water was severely felt. In one parish, where there is not a well, every tank dried up, and water had to be brought four miles and retailed.—*Keston Tower.* Fine with very little R; not unpleasantly warm, although very dry. The country suffered much from drought. A bad year for every kind of fruit.—*Emsworth, Redlands.* Day temperatures generally high and uniform, nights cool, strong N.E. and S.E. winds. Harvest began about the 22nd.

III. *Great Berkhampstead.* An extremely sunny month, with a mean daily duration of sunshine of eight and a half hours, and R less than one-third of the average.—*Throcking Rectory.* A bright dry month. R 1·40 in. below the eight-year average. The max., ·45 in. on 15th, fell during TS in 30 minutes. Mean temp. 2°·8 above the average, and the warmest July in eight years.—*Banbury, Bloxham.* Remarkable for the long succession of brilliant weather. It was hot without being oppressive, the night temperature was not high, and during the day the heat was tempered by pleasant breezes. Upland pastures were very much parched, and the spring corn, in places, suffered from the drought. The wheat crop was very fine. Harvest was general at the close.—*Northampton.* R 206 in. below the average.

IV. *Harlow, Sheering.* R 1·30 in. below the average of 20 years.—*Ipswich, Bishop's Hill.* R ·93 in. below the average.—*Woodbridge, Melton.* Crops poor on light land, promising well on good heavy land; fruits fair; game plentiful; everything dried up.—*Diss.* Magnificent summer weather with small R, but sufficient sprinklings to prevent any serious consequences from drought. The hay crop, though not large, was got up in perfection, and cereals on heavier lands looked well and vigorous. Turnips were poor, but beet was healthy. The heat was at times oppressive both by night and by day, and summer fruits were rather dried up, though the crop was good. Numerous cases of slight sunstroke occurred.

V. *Torquay, Babbacombe.* Dry, fine and very hot, with rather high pressure. The weather was hot and fine from 1st to 5th and 18th to 23rd, but unsettled from 6th to 17th and 24th to 31st. No R was measured in the 31 days ending on the 7th, being the longest dry period yet observed, and only ·25 in. in 39 days, from June 3rd to July 11th. The mean temp., mean max. in shade and in sun, and the absolute shade min. (51°·1) were the highest observed in any month. Mean temp. 3°·3 above, and R ·92 in. or 40 per cent. below, the average. Hay harvest was over by the 9th; crop light. The burnt pastures recovered some of their verdure after the heavy showers on the 15th. Solar halos on 6 days.—*Ashburton, Holne.* R 1·63 in. below the average of 6 years.

VI. *Ross, The Graig.* The first week was very hot, the remainder of the month warm, but not excessively so. There was scarcely any T, and the nights were not particularly warm. With the exception of 4 days there was no R sufficient to wet the ground, so that the drought, which had continued from June 3rd, was scarcely broken up. Vegetation was much burnt, though not so badly as in 1868. Harvest commenced in earnest in the last week. Rivers were very low. The finest summer for many years.—*Burton, Derby Road.* Hot almost throughout. R 1·40 in. below the average.—*Burton, Hoar Cross.* Bright and very hot.

VII. *Melton Mowbray, Coston.* Another very dry month, the little R that fell producing very little effect upon the parched soil.—*Ketton Hall* [*Stamford*]. Very dry and warm throughout. Wind variable with frequent signs of R, which proved false; all kinds of vegetation suffered much.—*Horncastle, Bucknall.* With the exception of the 31st there were only a few light showers, and the country suffered greatly

from drought.—*Southwell, Oxton.* Hot and sunny; temperature 4°·5 above the average. Rainfall ·86 in. below the average. Bright sunshine greatly in excess of that recorded for any recent July. T in afternoon, with a heavy shower of R, on 14th; TS and heavy R, 6.15 to 7 p.m., on 16th, ·53 in. fell; T in evening of 31st.—*Mansfield.* R 1·35 in. below the average. The seventh consecutive month with R below the average, making the driest seven months registered. From June 3rd to July 16th less than half-an-inch of R fell. Pastures, barley and turnips suffered severely. Pressure high, wind very changeable.—*Worksop, Hodsock Priory.* Very bright and warm and rather dry. Mean temp. higher than in any year since 1876; sunshine 228 hours more than in any of the previous 6 years; R small, but not exceptionally so. Harvest began during the last week.—*Elvaston.* A fine and hot month; much magnificent summer weather; very dry on many days.

VIII. *Macclesfield.* R 1·16 in., the smallest July R since 1869, when ·95 in. fell.—*Liverpool, Walton-on-the-Hill.* Very warm and dry throughout. R 2·80 in. below the average.

IX. *York, Cherry Hill.* R 1·56 in. below the average of 38 years. —*Scarborough.* Remarkable for continued high temperature and very deficient R, 1·79 in. below the average of 21 years.—*East Layton* [*Darlington*]. Very hot and generally dry, everything requiring much more R than fell, pastures sadly burned in places, but springs holding out well. A capital hay harvest, and turnips looking well, but crops rather light and straw short. Hay cut on June 29th was stacked on July 2nd.

X. *Hutton Roof.* Though there was a fair average R, the severity of the drought in June still caused a scarcity of water, especially for cattle and sheep grazing in the fields. Hay crop generally very light, and fully one-third less than the average. Harvest about three weeks earlier than usual.—*Uldale Rectory.* Very pleasant and agreeable. The occasional showers freshened vegetation wonderfully, though more R was much needed for domestic purposes. A remarkable absence of T, setting aside altogether the old character of the English summer, "three fine days and a TS."

XI. *Llanfrechfa Grange.* Very fine and hot, with very heavy dews. Oats and barley coming on fast, unusually early.—*Llechryd, Castle Malgwyn.* Very dry, the ground being so hot that the R which fell seemed to dry up without doing any good.—*Douglas, Victoria Road.* July, too often wet and cold here, was brilliantly fine

and dry, but with no great warmth, a max. of 70° being scarcely reached. From June 6th to July 6th was absolutely rainless.

XII. *Melrose.* Mean temp. 1° below the average; R ·52 in. below the average. Frost occurred on two nights. Wind S. and W. on 28 days. Harvest began on 29th. I do not remember seeing corn cut here in July before.

XVI. *Coupar Angus.* R much below the average, though falling on 21 days. Mean temp. much above the average.

XVIII. *Loch Shiel, Glenaladale.* Wet, mild, and, as a whole, calm, though there were some brisk breezes in the last week.

XIX. *Watten H.R.S.* Mild, sunny and fine, with just enough R.

XX. *Dunmanway, Coolkelure.* Very high temperature throughout. —*Derrycastle* [*Killaloe*]. The R, though ·94 in. below the average of 9 years, was a great boon after the exceptionally dry spell since January, but it came too late to benefit most crops. All meadows were extremely light, but hay was well saved and of good quality. Grass and turnips were almost *non est*, and corn crops were very short in straw, but the grain promised well.—*Newcastle West.* A splendid month, though the heat was occasionally intense.—*Broadford, Hurdlestown.* A very favourable month for the country. Hay crop very poor. Many places badly off for water. Many small rivers quite dry at the close. Water carted 9 miles in some parts of County Limerick.—*Miltown Malbay.* The first half of the month was warm and sultry with a little R, which was scarcely appreciable on the baked surface of the earth. Cool drying winds from the N. prevailed from the 16th to the 20th, when the wind, backing to the S.W., brought the long wished for R which, though it did not soak far into the soil, revived the pastures. Hay crop not a third of the average.

XXI. *Edgeworthstown, Currygrane.* The R was of immense service to the crops, which up to the end of June were looking very parched. There was plenty of grass at the close, and the potato crop was excellent.

XXIII. *Belfast, New Barnsley.* Changeable after the 9th. Though less than the average of 12 years, the R did immense good to root crops of all kinds and to pastures.

AUGUST.

I. *Lansdowne Crescent, W.* A warm month, excepting from 11th to 22nd. No R fell until the evening of the 16th, but the TSS of the 17th yielded more than two inches.—*Muswell Hill.* R within ·01 in. of

the average of 15 years. The first 15 days were absolutely dry. The TSS of the early morning and the evening of 17th broke up the drought; the last six days were all wet, 1·12 in. falling on 30th and 31st.—*Finchley, Etchingham Park.* The drought of June and July was prolonged into August, the first 15 days being rainless, but was at last broken up by heavy R (·50 in.) with L and T during the early hours of the 17th. R was recorded on the last six days, the 30th and 31st being very wet.

II. *Dorking, Abinger.* The fine weather of July continued well into this month, thereby checking the growth of vegetation in general and causing great scarcity. The R of the 15th, 16th and 17th was the salvation of the root crops.—*Wallington.* The month may be divided into two parts, the first 14 days (with the exception of a little R on 13th) being hot and dry and the latter part wet and cool. R 2·09 in. above the average of five years. The month was remarkable for the early harvest. The lavender crop was poor, the mint very good. 251 hours of sunshine were recorded.—*Hythe.* The first 12 days were very dry and fine, the rest of the month was unsettled with T, L, and occasional heavy R squalls.—*Keston Tower.* The long drought continued until the middle of the month, when a heavy TS occurred; a short period of dry weather followed, and the month ended with heavy rains.—*Emsworth, Redlands.* High temp. prevailed until the 20th. Harvest was two weeks earlier than usual.

III. *Broxbourne.* The drought which set in on June 7th lasted till nearly the end of this month, the few showers which fell not having been sufficient to restore vegetation. There was a good wheat harvest, but other grain, root and fruit crops suffered much from want of moisture.—*Great Berkhampstead.* Exceptionally dry and bright, with a very large daily range of temp. and an extremely dry air.—*Throcking Rectory.* Another month of warm, settled weather, with a dry period of 11 days and another of 8 days. The rainfall for the three summer months seems in this neighbourhood to have been the smallest since 1864. R 1·00 in. below the eight-year average. Mean temp. 2°·7 above the average.—*Banbury, Bloxham.* Very fine and pleasant, favourable to the harvest, which was secured in excellent order.—*Northampton.* R ·98 in. below the average of 21 years.

IV. *Ipswich, Bishop's Hill.* The R, all of which fell in the last half of the month, was just half the average.—*Diss.* Bright, magnificent,

rainless weather till the 13th, when there was a welcome R of ·25 in. succeeded by other light falls, doing good to root crops and gardens. Another spell of hot dry weather followed from 21st to 25th, and then a showery week concluded the month. The harvest weather was perfection, and cereal crops were very good on our heavy lands. I do not remember a more brilliant summer. The apple crop was large, but the fruit small, as was the case with all other garden fruits.

V. *Torquay, Babbacombe.* The third dry, fine and hot month of a wonderfully fine summer, and the eighth consecutive month with R below the average. The mean shade max. and the absolute max. were the highest recorded; the mean daily range and the extreme range of temperature were the greatest, and the mean humidity and amount of cloud were the least observed in 12 Augusts. The pastures were again much burnt by the drought and heat in the first part of the month. The corn harvest was finished by the 20th, and the crop was good but short in straw. Autumnal tints were appearing on many trees after the 15th. Solar halos on six days.—*Ashburton, Holne.* R 1·15 in. below the average of six years.

VI. *Ross, The Graig.* The drought, which had lasted from June 3rd (with the exception of heavy R on July 14th, 15th and 26th), broke up on the 16th, and R then fell in heavy showers, principally at night, so that most of the days were bright and warm. The grass, which had been much burnt, though not so badly as in 1868, had pretty well recovered at the close, and the harvest in this neighbourhood was then completed.—*Burton, Derby Road.* Fairly warm, and, with the exception of the 16th, when 1·12 in. of R fell, very dry, the total amount being ·68 in. below the average.—*Burton, Hoar Cross.* Very hot up to the 12th, followed by sharp frost on the 13th, with ice the thickness of a penny piece, and on the 16th T with very heavy R (1·19 in.), the greatest fall since May, 1886.

VII. *Melton Mowbray, Coston.* Another wonderfully dry month. Harvest work progressed with very great rapidity. High day temp. prevailed at the beginning and end, but the nights were very cold in the early part and middle. Ground frosts occurred on 15th and 22nd.—*Ketton Hall [Stamford].* Again very dry, with many tokens of R, and more dull weather than in July. Wind very changeable, but northerly on 16 days.—*Southwell, Oxton.* A very dry and rather cold month. Rainfall 1·57 in. and temp. 1°·5 below the average. No R fell until the 12th, and there were no heavy falls. T in S. from

2 to 2.30 p.m., on 18th.—*Mansfield.* Dry, warm and genial, with R ·88 in. below the average of 17 years. Unsettled at the close, with heavy showers. The earliest harvest since 1868.—*Worksop, Hodsock Priory.* Another dry and bright month, with warm days and cold nights; very favourable for harvest, which was practically finished at the close, about the time that it began in 1886. The R of the last few days was most welcome. 176 hours of sunshine were recorded. —*Elvaston.* Very fine and hot until towards the middle, then cooler but pleasant generally.

VIII. *Macclesfield.* R not one-third of the average; mean temp. above the average.—*Liverpool, Walton-on-the-Hill.* Generally fine, and for the most part warm, the temp. being above 70° on 13 days. R 1·26 in. below the average.

IX. *Wakefield, Stanley Vicarage.* The dryness of the season made corn very short in the straw, but the yield was fairly good, and both turnips and potatoes looked very well, considering the drought. —*York, Cherry Hill.* R ·66 in. below the average of 38 years.

X. *Barnard Castle, Whorlton.* Generally fine and hot.—*Hutton Roof.* The drought was very severe during the early part of the month, many farmers having to cart water great distances for their stock. Ponds dry for a longer time than can be remembered before by the oldest inhabitants. Comparisons were frequently made with the great drought of 1826. The rains towards the close made a wonderful change in the pastures, so that after-grass, turnips and potatoes made rapid growth. Harvest fully three weeks earlier than usual.— *Uldale Rectory.* Very pleasant and agreeable, and although R fell on 10 days, there were no destructive TSS.—*Shap, Copy Hill.* The early part was dry and hot during the day time, with frosts at night. Plenty of R fell at the end.

XI. *Castle Malgwyn,* [*Llechryd*]. R still wanted very badly; everything at a standstill.—*Douglas, Victoria Road.* Yet another very fine and dry month, during which cold N. and N.W. winds prevailed. Temp. rather below the average throughout. Harvest extremely light and well forward. Great scarcity of water in many districts.

XII. *Melrose.* Mean temp. 2°·1, and R ·37 in. below the average of 16 years. Wind S. or W. on 27 days. A little corn was still out at the close, the last few days not having been favourable.

XVI. *Balquhidder, Stronvar.* R about the average. A great want of sunshine after the first week. Harvest commenced early, but the crops could not be carried, owing to the dull, close weather.

Potato disease commencing. Very little T, and little or no wind. —*Coupar Angus.* Pressure high and steady to the 23rd. The hygrometric condition of the atmosphere at the close was very bad, and a deficient crop was only half stored.

XVIII. *Loch Shiel, Glenaladale.* Fine throughout, with a few cool days about the middle of the month. The last few days were very close and muggy.

XIX. *Watten H.R.S.* The first part of the month was cloudy and cool, the middle dull, the latter part sultry and foggy.

XX. *Killarney, Woodlawn.* Drought prevailed during the first half. Mushrooms were extremely abundant, and wasps and house flies very numerous. On light soils and limestones very short grain crops were gathered. On soils in other years boggy and cold, splendid crops of all kinds were obtained. Hay was short; peat abundant.—*Derrycastle* [*Killaloe*]. Brilliantly fine harvest weather until 26th. Though R fell on 11 days during that period, the quantity was small, and quickly dried up without injury to the hay and corn then harvesting. From the 26th to the close it was very wet and stormy, 2·94 in. of R falling in the last 6 days.—*Newcastle West.* To the close of the month all crops and pastures were in a very bad state from continued drought. Crops were almost a complete failure with the exception of wheat.—*Miltown Malbay.* The first week, which was hot and sultry, was succeeded by a cool nor-wester for a few days, followed by a few nights' frost, which did considerable damage to growing potatoes. The middle of the month was rather changeable, great drought always predominating, with very sultry air. High S.W. winds set in on the 22nd, carrying with them dense clouds from the Atlantic, charged with moisture, and the great drought broke up on 24th.

XXI. *Edgeworthstown, Currygrane.* The water supply was getting very short all over the district at the close. Crops very fair; turnips much improved.

XXII. *Ballinamore, Lawderdale.* A seasonable month; rather wet in the latter part.

XXIII. *Belfast, New Barnsley.* The R, though not much below the average of 12 years, added little to the water supply. Showers fell after 4th, but till the heavy showers of the 30th the ground absorbed all that fell. Farmers were more forward than for many years, and there was no cause for complaint, except lightness of flax and hay crops in some places.

SEPTEMBER.

I. *Lansdowne Crescent, W.*—Temperature uniformly low. The coldest September since 1877. Very dull, with R below the average. —*Muswell Hill.* R about 5 per cent. below the average of 15 years. More than five-sixths of the whole fell during the first 17 days; from 18th to 25th no R fell.—*Finchley, Etchingham Park.* A rather wet month. Dry and wet periods alternated, but the first week was by far the wettest, nearly half the total falling during it. The next week was generally dry, while during the three days, 15th to 17th, nearly an inch of R fell, after which there was an absolutely dry week (19th to 25th), and R fell again on four out of the last five days.

II. *Dorking, Abinger.* The early part of the month was showery and somewhat hindering as regards outdoor work, but on the whole the month was good.—*Wallington.* Rather damp and rainy, with R ·18 in. less than the average of five years, but on the whole cool and seasonable, and favourable for outdoor work. Pears and apples fairly abundant, and vast quantities of plums. 136 hours of sunlight were recorded.—*Keston Tower.* A very cool September, with a fair amount of R, which did a great deal of good. Apples a fair crop, peas abundant, turnips and swedes destroyed by fly.—*Littlehampton.* A wild September, and the coldest observed.

III. *Broxbourne.* A cold stormy month.—*Great Berkhampstead.* No really warm day and a good many cold nights.—*Throcking Rectory.* The wettest month of the year. R ·93 in. above the eight-year average. Mean temp. 3°·6 below the average and the lowest in eight years.—*Banbury, Bloxham.* The R being below the average did not compensate for the deficiency during the spring and summer. Springs and mill-streams were low at the close, and the R had not penetrated to the depth of the plough. Northerly winds were prevalent, and although there were many pleasant days the temperature was frequently low.—*Northampton.* R 1·18 in. below the average of 21 years.

IV. *Harlow, Sheering.* R ·43 in. above the average of 20 years.—*Ipswich, Bishop's Hill.* R ·03 in. above the average. The last week was wet and cold, with TSS.—*Diss.* September began with a week of wet and with heavy gales on 1st, 2nd and 4th. Frequent showers, with cold and a good deal of dull weather marked the remainder of of the month. Apple and pear crops were large, and the land was in excellent condition at the close. Water, however, was still scanty in places, and ponds were very low.

V. *Torquay, Babbacombe.* Very cold, with less R and humidity, but more wet days than usual; showery till 17th and after 26th, but dry and mostly fine from 18th to 25th. 2·31 in. of R fell in the five days, August 30th to September 3rd, causing the pastures to recover the verdure they had lost during the preceding long drought. The max. pressure was the highest, and the max. temp. in shade and in sun, and the min. in shade and on grass were the lowest observed in September. S.W. winds on 12 days.—*Ashburton, Holne.* R ·68 in. below the average of six years.—*Taunton, Lydeard House.* Though more than three inches of R fell, the water in streams and wells was still very low at the close.

VI. *Cirencester, Further Barton.* A fine month, the dry weather returning after the first week, with slight frost at the close.—*Ross, The Graig.* R below average, though there were more rainy days than usual. There was no frost to blacken dahlias, though vegetable marrows were nipped in places; neither was there any hot weather, though it was very fine from 17th to 25th. Generally speaking, cold for the season.—*Burton, Derby Road.* Cold and windy almost throughout. R ·60 in. below the average.

VII. *Melton Mowbray, Coston.* Although the R was nearly up to the average, the effects of the drought were still felt at the close, the ground being so dry that ponds which were partly filled again dried up once more. There were some very cold nights.—*Ketton Hall* [*Stamford*]. A more favourable month for vegetation, but still too dry, R not coming in large enough quantities to penetrate far into the ground. Wind, temperature and pressure were all very changeable.—*Southwell, Oxton.* Much the coldest recent September, the mean temp. being about 3° below the average. Rainfall ·60 in. below the average. Until the 16th the weather was showery, after that there were only three wet days.—*Mansfield.* An unsettled, showery month with R on the first 16 days with one exception. R ·57 in. below the average of 17 years. There was an absence of T and high winds. Pressure variable.—*Worksop, Hodsock Priory.* The coldest September for ten years. Duration of sunshine 96 hours.—*Elvaston.* Quiet and pleasant on the whole, particularly after the first week; two frosty nights.

VIII. *Liverpool, Walton-on-the-Hill.* A good deal of R fell at the beginning of the month, but afterwards it was finer, and the total was only ·24 in. above the average.

IX. *York, Cherry Hill.* R ·47 in. above the average of 38 years.—

Scarborough.—Much of the month was dull, cold and wet.—*East Layton* [*Darlington*]. The early part was wet and dull, but without fogs; later there was a good deal of fine sunny weather. Corn crops were all gathered in safely a month sooner than usual.

X. *Barnard Castle, Whorlton.* Much R fell in the first half, then fair and dull weather prevailed.—*Hutton Roof.* A good deal of R fell in T showers. The remainder of the outstanding crops was got in about the 24th. Pastures growing well at the close.—*Uldale Rectory.* The R, though very considerable (6·16 in.), was not more than was required, and was moderate and gentle in character, so that the ground did not at any time appear at all drenched or sloppy. Pressure fairly steady.—*Shap, Copy Hill.* The early part of the month was very wet, which prevented farmers gathering in the harvest. A few fine days in the middle of the month proved a great benefit to them.

XI. *Douglas, Victoria Road.* Wet with strong, cold N.W. winds to 15th; fine and dry in the middle of the month; the last week wet and very cold.

XII. *Melrose.* Mean temp. 2°·1, and R 1·65 in. below the average.

XIII. *Edinburgh, Blacket Place.* Exceptionally wet, 2·86 in. of R falling in the first six days.

XVI. *Balquhidder, Stronvar.* September opened wet and bad for harvest; what was cut was saved in bad order, but the later cut was well secured. On the whole, a good month for the country.

XVIII. *Loch Shiel, Glenaladale.* A most beautiful month throughout, and very calm, though the wind blew pretty strongly with the R of 8th and 9th, and 25th and 26th.

XIX. *Watten H.R.S.* The first half of the month was wet and mild, the latter half dull but dry. Frosts at night occurred in the last week.

XX. *Dunmanway, Coolkelure.* Very fine and genial. R not enough to affect the springs, which were lower at the close than at any previous time during the year. Wind principally N. or E., and not cold.—*Killarney, Woodlawn.* The month opened with a deep depression and heavy R. From 15th to 25th not a drop of R fell. Much dust-haze prevailed, and a splendid "Indian summer" was experienced. Late crops were well secured. On the 25th a complete change set in, and wet weather put a stop to out-door operations.—*Derrycastle* [*Killaloe*]. Very favourable on the whole. From August 26th to September 5th there was heavy and continuous R,

and corn and hay were in danger, but on the 6th the weather cleared up and held fine to the 24th, enabling farmers to secure their crops in first-rate order. The closing days were chilly with frequent showers of R and some H.—*Newcastle West.* Pleasant and seasonable, despite R on 14 days. From 12th to 23rd there was a succession of clear nights with slight frosts and fogs in the mornings.—*Broadford, Hurdlestown.* There were a good many rainy days during the first half of the month, but about ten very fine days followed; the last week was wet. Most of the harvest work was over at the close.—*Miltown Malbay.* Heavy falls of R with generally mild weather prevailed during the first half; beautifully fine, calm and sunny weather from 16th to 25th, with hoar frosts at night; then low temperature with H showers to the close. The latter half of the month was splendid for garnering the remainder of the harvest.

XXII. *Galway, Queen's College.* Mild and favourable.—*Ballinamore, Lawderdale.* The first ten days were wet; the remainder of the month was dry and seasonable.

XXIII. *Belfast, New Barnsley.* There were only two fine days till the 17th, from which date to the 24th it was very fine, then showery to the end. The heavy R at the beginning of the month nearly all disappeared before the close, land being as dry as before and streams nearly dry.

OCTOBER.

I. *Lansdowne Crescent, W.* Exceptionally cold throughout. S fell on the 12th, and very sharp frosts occurred on the 13th, 22nd and 26th. R less than half the average.—*Muswell Hill.* R 1·63 in. or 53 per cent. below the average of 15 years. The first eight days and the third week were rainless.—*Finchley, Etchingham Park.* Another month with deficient R. Roughly speaking, the first and third weeks were dry, the second and fourth wet.

II. *Dorking, Abinger.* Unusually dry and cold, with a good deal of frost; min. temp. 15°, which is unusually low for October.—*Wallington.* Very cold, dry and foggy. R 1·35 in. below the average of five years. Very favourable for field and garden work. The stream running under Carshalton Park wall was dry at the close, for the first time since 1884. Duration of sunshine 96 hours; on seven days the sun did not shine, and on three others the recorded sunshine was less than half-an-hour.—*Hythe.* Very cold, dull and showery.

—*Keston Tower.* Cold, frosty and unseasonable, more like January than October. Prevailing wind N.—*Littlehampton.* Unlike October for many years past, there were no early frosts, but later on most severe ones, which, as it was dry, did little harm. Heliotrope &c., still in bloom at the close.—*Emsworth, Redlands.* Effects of drought severely felt; wells and brooks dry. Frost nightly from 10th to 25th. Trees nearly leafless at the close.

III. *Great Berkhampstead.* The fortnight ending 26th was very cold, with frost every night.—*Throcking Rectory.* A small R for what usually proves the wettest month of the year, being 1·52 in. below the eight-year average. Mean temp. 2°·5 below the average.—*Banbury, Bloxham.* The first part of the month was gloomy, but mostly fair with low temperature. From 15th to 23rd it was fine, with several very pleasant days.—*Northampton.* R ·39 in. below the average.—*Cambridge, Beech House.* Mean temp. 4° below the average of 17 years.

IV. *Harlow, Sheering.* R ·96 in. below the average of 20 years.—*Ipswich, Bishop's Hill.* R about the average; temperature very variable, with frost and S on several occasions.—*Woodbridge, Melton.* A great absence of the usual genial weather of October; several slight sprinkles of S, several heavy gales and some TSS.—*Diss.* A cold, uncomfortable month, commencing with dull weather, drizzle and showers; the first S fell on 12th, and on the 14th there was a heavy gale from W. Another spell of dull weather was followed by four fine days, from 20th to 23rd, and then by snowings and blowings from N.W., with H and bright intervals. Farmers on heavy land got their wheat in well, and pronounced the land to be in first-rate working order; but wintry weather certainly set in early.

V. *Torquay, Babbacombe.* Dry and very cold, with high pressure. The tenth consecutive month with R below average. From September 30th to October 25th only ·56 in. of R fell, but in the last six days 2·75 in. fell. The mean temp., mean min. in air and on grass, absolute max. and min. in air, and max. in sun were the lowest; the number of wet days and the mean wind force were the least, and the number of frosts on grass was the greatest in twelve Octobers. Autumnal tints were very fine. There was great scarcity of water till the 26th, many wells and streams, that were never known to fail before, being dried up.—*Ashburton, Holne.* R 2·97 in. below the average of six years.

VI. *Cirencester, Further Barton.* Unusually dry and fine until near

the end, with frequent frosts; dahlias cut on 12th, and all tender plants on 25th.—*Cheltenham.* Frost on 12 days.—*Ross, The Graig.* The long period of dry weather which lasted, with a few intervals from January 19th, terminated on the 26th, 13·24 in. of R having fallen in 279 days. The frosts this month (11) were unprecedented both in number and severity, the greatest number previously being nine in 1873, and the average of 28 Octobers, 2·6. The mean temp. 44°·8 was also the lowest registered for October.—*Burton, Derby Road.*—Very dry with the exception of the last few days. R ·90 in. below the average.

VII. *Melton Mowbray, Coston.* The month was remarkable for low temperature, the mean and the absolute max. and min. being the lowest in 15 years.—*Ketton Hall* [*Stamford*]. Very changeable, sometimes very bright. Wind northerly on 23 days. The frosts on 22nd and 26th were very severe for October. Most of the trees were bare at the close.—*Horncastle, Bucknall.* Very cold, with more severe frost than had occurred in October since 1869.—*Southwell, Oxton.* Very cold and dry; temp. about 3°, and R more than an inch below the average.—*Mansfield.* Remarkable for low temperature and small R. Frosts occurred on 17 nights; more than the total for the same month during the preceding six years. R 1·68 in. below the average of 17 years. The first week was pleasant and genial, the last was cold and showery, with high winds on 29th and 31st.—*Worksop, Hodsock Priory.* Another dry and very cold month, with mean temp. lower than in any of the preceding eleven Octobers, except in 1880, when it was the same. The nights were especially cold, and the number of frosts on grass was very large. Very favourable weather for sowing wheat and lifting roots. Ninety-one hours of sunshine were recorded.—*Elvaston.* Generally very dry and pleasant, though often very cold, until the 27th; six frosty nights.

VIII. *Macclesfield.* Very severe for October. Frosts occurred on 11 days, the temp. twice falling below 25°. R below the average. Trees were early stripped of leaves.—*Liverpool, Walton-on-the-Hill.* Although some very cold days were experienced the weather was for the most part seasonable. R 1·30 in. below average.

IX. *York, Cherry Hill.* R ·67 in. below the average of 38 years.—*Scarborough.* A cold, wet month; mean temp. 5°·3 below the average of 21 years.—*East Layton* [*Darlington*]. A very fine month, exceptionally so during the early and closing parts; about a fortnight

of very cold weather occurred in the middle of the month, with strong N. wind.

X. *Barnard Castle, Whorlton.* Cold N. winds were very prevalent, with a few warm days.—*Uldale Rectory.* A very favourable month for all kinds of outdoor work, and the daily temperature, with three or four exceptions, was very mild and equable.—*Shap, Copy Hill.* On the whole seasonable; wet and cold, with strong winds towards the close.

XI. *Llanfrechfa Grange.* Fine and very favourable for all farming and gardening operations.—*Castle Malgwyn,* [*Llechryd*]. Rather dry and very cold.—*Douglas, Victoria Road.* Yet another fine, dry, but cold month, the mean temperature being below the average throughout.

XII. *Melrose.* Mean temp. 3°·4, and R 2·26 in. below the average, wind S. and W. on 26 days, moderate in force except on 26th and 27th.

XVI. *Dollar.* Generally dry and fine.—*Balquhidder, Stronvar.* Splendid weather; R light; all crops and roots secured a month early.—*Coupar Angus.* R much below average. Temperature fell below 32° on 18 nights, and rose above 50° on 17 days.

XVIII. *Loch Shiel, Glenaladale.* Very fine till the last ten days, which were wet, cold and stormy, with a good deal of S on the tops of the high hills.

XIX. *Watten H.R.S.* October opened cold, dry and cloudy; from the 6th to the 25th was generally wet, cold and windy; the last week was fine.

XX. *Dunmanway, Coolkelure.* Exceptionally fine to the 26th, calm, mild and rather cloudy; the last week very wild and wet.—*Killarney, Woodlawn.* All kinds of fruit and berries very abundant. First S capped the mountains on 11th. Squally weather with T closed the month.—*Derrycastle* [*Killaloe*]. Splendid weather until 25th, with only ·29 in. of R; wet and stormy from 26th to the close. The R, 2·96 in., was unusually small, and but for heavy falls on 26th, 30th and 31st, would have been unprecedentedly so in depth, as it actually was in the number of days (9) on which it fell.—*Nenagh, Castle Lough.* Only ·23 in. of R fell up to the 25th, which was a fine, frosty day with very high pressure, but towards evening the wind changed to S., pressure went suddenly down, and on the 26th it blew and rained hard. The next day was mild and misty, and the weather did not appear to have broken permanently, but a day or two later the temperature fell, and rainbows by day, with L at

night, showed that the weather was, at last, really breaking. During the earlier part of the month there were frequent night frosts, but they were slight and the weather was very fine.—*Newcastle West.* A splendid October; but flowers cut down by frost on 12th. —*Kilkishen.* Fine and dry till 26th, when 1·13 in. of R fell.—*Broadford, Hurdlestown.* With the exception of the last six days, the month was very fine and dry, but a little cold. Water was again very low, and wells that had water in them all the earlier part of the year were dry in the third week.—*Miltown Malbay.* Exceptionally dry and fine to the 26th, so much so that the springs generally were failing, and vegetation was not progressing; otherwise it was weather of the first order for agricultural purposes. The last six days were squally with heavy R and H showers, and T and L; the R for these six days was 3·53 in., that of the rest of the month being only ·44 in.

XXI. *Edgeworthstown, Currygrane.* Exceedingly dry till the 28th, with all the usual water supplies short; then heavy R fell with H, and a gale.

XXII. *Ballinamore, Lawderdale.* The first half of the month was cold and bleak; the latter half seasonable.

XXIII. *Belfast, New Barnsley.* Altogether fine and open; dams as low on the 26th as in July; very stormy with R at the close.

NOVEMBER.

I. *Lansdowne Crescent, W.* Mild till the 12th, cold during the remainder. Frost in shade on 8 nights.—*Muswell Hill.* The R, more than two-thirds of which fell in the first 10 days, was 11 per cent. above the average of 15 years.—*Finchley, Etchingham Park.* A wet month, the R being much greater than that of any preceding month of the year. The first 10 days were very wet, nearly three-quarters of the total falling during that period; the next 7 days were dry, as were also the 4 days from 23rd to 26th.

II. *Dorking, Abinger.* November found us in a second drought, but during the month R was plentiful and heavy. Some cold weather occurred, but nothing to hinder out-door operations.—*Wallington.* A very wet, sunless month, with R no less than 2·05 in. above the average of five years. Frosts at times were severe, and in the middle of the month out-door work was nearly impossible. There were thick fogs on six days. The duration of sunshine was 52 hours; there were 11 days on which the sun did not shine, and on 7 other

days, the amount recorded was less than half-an-hour.—*Hythe.* A variable month, with frequent fogs, R, H and S.—*Keston Tower.* A very unpleasant month, with an extraordinary amount of R (5·56 in.). Frost and fog prevailed, more or less, from 13th to 22nd.—*Emsworth, Redlands.* Gales and strong squalls prevailed from 1st to 5th, N.E. and E. winds from 7th to 24th, and the month ended with muggy weather.—*Littlehampton.* Very cheerless throughout, though there was very little fog by land or sea. Vegetation flourished.

III. *Great Berkhampstead.* The first 9 days very wet indeed.—*Throcking Rectory.* A cold month. R ·16 in. above the eight-year average. Mean temp. 2°·7 below the average, and the lowest in 8 years, the minimum on 17th being the lowest temp. yet registered in November.—*Banbury, Bloxham.* With the exception of 5 days at the end, cold, gloomy and disagreeable, with a great deal of fog and the temperature very low.—*Northampton.* R ·46 in. below average. Severe frost prevailed from 15th to 22nd, followed by mild weather to the close.

IV. *Harlow, Sheering.* R 1·03 in. above the average of 20 years.—*Ipswich, Bishop's Hill.* Dull and foggy; R 1·17 in. above the average.—*Woodbridge, Melton.* A dreary month with slight S falls on several days, but not enough to measure.—*Weybread Vicarage.* Wet and mild for the first 10 days, cold and frosty in the middle, mild and fine at the end. Wells failing.—*Diss.* Hood's description fits the month exactly:—

> "No warmth, no cheerfulness, no healthful ease,
> No comfortable feel in any member;
> No shade, no sun, no butterflies, no bees,
> No fruits, no flowers, no leaves, no birds—No-vember!"

Gloomy, foggy, damp, cold and windy, with heavy gales on three occasions.

V. *Torquay, Babbacombe.* A cold, wet month, with very low pressure. The first month in the year with R above the average. The coldest November since 1879. R was measured every day from October 6th to November 10th, the total fall of the 16 days being 5·24 in. The mean temp. was 2°·3 below the average. No S or fog was observed.—*Ashburton, Holne.* R 1·23 in. below the average of 6 years.—*Taunton, Lydeard House.* In spite of the considerable amount of R in the first 10 days, all the streams in the neighbourhood continued very low.

VI. *Cirencester, Further Barton.* A period of dull, damp weather

was succeeded by cold with severe frost, which lasted from 14th to 22nd; the rest of the month being mild, with but little R.—*Ross, The Graig.* A very uncomfortable but perhaps typical month, the wet weather which prevailed during the last week in October continuing almost throughout. No warm days, and very few fine bright ones occurred. The R, though nearly the average in amount, was more constant than heavy. The elms were bare from the 1st, and the usual autumn effects of November were wanting; the weather, however, suited the agriculturists.—*Burton, Derby Road.* The month was ushered in by violent storms of wind and R, but after the 6th, dull, damp weather prevailed, although the R was 1·04 in. short of the average.

VII. *Melton Mowbray, Coston.* The first part of the month was very stormy, with frequent R. Cold weather prevailed from 15th to 24th, followed by a few mild days.—*Ketton Hall* [*Stamford*]. Changeable, with sharp frosts from 16th to 21st, but not much fog; only 10 bright, sunny days. Wind N.E. on 13 days.—*Horncastle, Bucknall.* A dry month. The mean temp. of the five days, 16th to 20th, averaged 13° below the mean.—*Southwell, Oxton.* Another cold and dry month. Temp. 1°·3, and rainfall ·64 in. below the average; however, there were many wet days (20), but no heavy falls. T on 3rd; fog all day on 21st.—*Mansfield.* Wild and stormy, with frequent heavy showers till the 14th. R ·36 in. below the average of 17 years; the 11th month of deficient R.—*Worksop, Hodsock Priory.* The coldest November since 1879; R less than in 10 of the previous 12 years. A favourable month for autumn work, wheat coming up well.—*Elvaston.* Unsettled and mild during the first part of the month; afterwards cold and mostly dry; 11 frosty nights.

VIII. *Liverpool, Walton-on-the-Hill.* The weather on the whole was fair, with variable temperature. R just half the average.

IX. *York, Cherry Hill.* R ·39 in. below the average of 38 years. R for 11 months 15·36 in., 7·04 in. below the average.—*East Layton* [*Darlington*]. A real November; raw, damp, and rather cold, with two heavy falls of S, which, however, did not lie long.

X. *Hutton Roof.* Very temperate on the whole, and with little S, allowing farmers to keep their cattle more in the fields than usual.—*Uldale Rectory.* Upon the whole very open and seasonable. The month commenced with a heavy gale from S.W., which did considerable damage. There was little or no fog or S, and, with the exception of one sharp frost (on 14th), there were scarcely any signs

of winter.—*Shap.* Rather unsettled to 7th, followed by a few dry days, which were a great comfort to farmers.

XI. *Llechryd, Fern Hill.* With the exception of the first week the month was very fine, and though easterly winds prevailed, very mild, with occasional frost.—*Douglas, Victoria Road.* Wet and somewhat stormy until the 6th, followed until the 18th, by a bright, calm, though cold period; thence to the end, wet days and bright frosty ones, alternated. A good November on the whole, and with two exceptions very free from heavy gales. R again below the average.

XII. *Melrose.* Mean temp. 2°·4 below, and R ·68 in. above the average. Wind generally moderate, except from 25th to 27th.—

XVI. *Balquhidder, Stronvar.* On the whole the weather was disagreeable, though the R was not excessive, and, considering that there was not much frost, the temperature was low, the max. only twice reaching 50°.—*Coupar Angus.* Both temperature and R were below the average of seven years. The first two weeks were cold and wet, but there were no floods nor excessive frosts, though the temp. fell below 32° on 16 nights.—*Dunkeld H.R.S.* Exceedingly mild and favourable throughout.

XVIII. *Loch Shiel, Glenaladale.* Very fine until the last week, which was wet, cold and stormy.

XIX. *Watten H.R.S.* Wet and windy, with little frost; good open weather.

XX. *Dunmanway, Coolkelure.* Generally very mild and open.—*Derrycastle* [*Killaloe*]. Cold, wet and stormy during the first week; fine and frosty generally from 8th to 20th, then damp and changeable tothe close. R below the average.—*Nenagh, Castle Lough.* On the whole a finer November than usual, and, except on the mornings of 16th and 24th, not cold. R not quite the average.—*Newcastle West.* A severe yet pleasant November, considering the usual character of the month.—*Broadford, Hurdlestown.* The first week was wet and cold, the next two weeks were frosty and not very wet, and the last week was wet and cold.—*Miltown Malbay.* A good average November; the first and last weeks blustery and rainy, the middle of the month mild. The surface of the ground was still dry at the close, and capable of being worked for all agricultural purposes owing to the deep fissures, penetrating to the gravel sub-soil, caused by the long summer drought.

XXII. *Clifden, Kylemore.* On the whole a wet and stormy month.

—*Ballinamore, Lawderdale.* On the whole a mild month. First week very wet, second week fine, third and fourth weeks wet.

XXIII. *Belfast, New Barnsley.* A very fine month with occasional frosts, which did not last long, and not much fog. The R of the first seven days was just sufficient to keep up the water supply, adding little for storage.

DECEMBER.

I. *Lansdowne Crescent, W.* Very changeable until the 17th, then cold until the 31st. Frost in shade on 14 nights; the ninth dry month of the year.—*Muswell Hill.* R just two-thirds of the average of 15 years. R or S was registered on every day except two from 7th to 23rd.—*Finchley, Etchingham Park.* Another month of deficient R. Though R was recorded on 16 days the amounts were generally small, being less than a tenth of an inch on 12 days. The last 11 days were virtually dry.

II. *Dorking, Abinger.* There was some very seasonable weather about Christmas time, but not of long duration. The leading features of the month were the constant changes which took place, making it somewhat trying.—*Wallington.* A damp month, though the R was ·39 in. below the average of 5 years. Alternations of temperature were frequent. Favourable for field work, which was very forward at the close; 40 hours of sunshine were recorded. On 13 days the sun did not shine.—*Hythe.* A very severe, wintry month. —*Keston Tower.* A cold month, with a moderate amount of R, but fine and pleasant on the whole. Heavy S fell in East Kent, but extremely little here. A little skating towards the close.—*Emsworth, Redlands.* From 1st to 15th strong S.W. to W. winds prevailed with rough weather; from 16th to 31st calm with severe frost and N. to E. breezes.

III. *Great Berkhampstead.* Cold, with frequent falls of S and R.— *Throcking Rectory.* A cold month, with dull, gloomy days. R 1·13 in. below the eight-year average. Mean temp. 1°·8 below the average.— *Banbury, Bloxham.* The month opened with three days of fine, pleasant weather. From 5th to 20th the weather was mostly cold and gloomy, with R and some S. From 21st to 27th very fine and pleasant, with low temp. The closing days, though fair, were dull and gloomy. Favourable to agricultural pursuits as a whole —

Northampton. R ·90 in. below the average of 21 years. On several occasions frosty nights were followed by mild days.

IV. *Harlow, Sheering.* R 1·02 in. below the average of 20 years. —*Ipswich, Bishop's Hill.* R ·52 in. below the average.—*Woodbridge, Melton.* Great variations in weather and temperature occurred.—*Diss.* Cold, with a small R, but frequent slight S and several gales. The frosts were sharp but not lasting. Young crops looked well at the close.

V. *Torquay, Babbacombe.* A cold, variable and rather dry month with generally low pressure. The eleventh dry month in the year. R ·80 in. below the average. With the exception of ·01 in. on 24th, all the R fell in the 17 days from 4th to 20th, which was the longest period of consecutive wet days in the year. Temperature was very variable. S.W. to N.W. winds prevailed on 18 days.—*Ashburton, Holne.* R ·37 in. below the average of 7 years.—*Temple Combe, Stowell.* Moderately dry and rather deficient in sunshine, with mean temp. 0°·9 below the average.

VI. *Cirencester, Further Barton.* A changeable month, often cold and frosty, with S showers and very low temperature.—*Ross, The Graig.* Seasonable, on the whole, without S of any consequence. R quite 25 per cent. below average. The first half was a repetition of the wet, windy weather which closed October, with temp. near the average. Frost occurred every night after the 17th; severe from 27th to 30th, with skating on the closing days. Scarcely any R fell after the 19th, but the weather was principally foggy, cloudy and unpleasant.—*Burton, Derby Road.* This month was marked by very varied weather, rain and snow, sunshine and fog, wind and frost. R an inch below the average.

VII. *Melton Mowbray, Coston.* A cold month on the whole. Although there were several periods of higher temperature there were frequent hard frosts. R below the average.—*Ketton Hall* [*Stamford*]. Very changeable throughout, with very variable pressure, but more sunshine than usual.—*Horncastle, Bucknall.* Very cold; mean temp. nearly 5° below the average.—*Southwell, Oxton.* Temp. slightly below the average, and rainfall ·65 in. less than the average. The weather was very unsettled; with great and sudden variations of temperature. S on six days, yielding ·95 in.—*Mansfield.* Very changeable, with dull, foggy days and cold frosty nights. Pressure generally high, with absence of violent winds. R ·61 in. below the average of 17 years.—*Worksop, Hodsock Priory.* The first three weeks

were unsettled, with great and sudden changes of temperature; the last ten days were anticyclonic, with dry and rather cold weather; 48 hours of sunshine were recorded.—*Elvaston.* Variable until the 17th, then dry to the end. No extreme of weather. Eighteen frosty nights.

VIII. *Liverpool, Walton-on-the Hill.* R just half-an-inch below the average.

IX. *Scarborough.* Changes of weather and temperature were exceptionally frequent and rapid.

X. *Hutton Roof.* On the whole a fine month, with less S than usual.—*Uldale Rectory.* Heavy and cheerless, though with no fog, and with medium temperature. S covered the ground on only two occasions, and farmers were able to keep their stock in the fields nearly every day.

XI. *Castle Malgwyn* [*Llechryd*]. A changeable month, R and frost alternating, but without S.—*Douglas, Victoria Road.* Cold throughout, though, on the whole, free from gales and high wind. R about the average.

XII. *Melrose.* Rough and unsettled at the beginning of the month, gales in the middle, moderate weather at the end. Mean temp. 0°·8 and R ·39 in. below the average. S. or W. winds on 26 days.

XIII. *Edinburgh, Blacket Place.* Though the total R was small, the weather was muggy and damp. Very little S fell.

XVI. *Dollar.* Somewhat dry, with frequent frosts at night during the latter half, but severe on only four nights.—*Balquhidder, Stronvar.* A good month for sheep farmers, neither S nor R being excessive and frost not severe.—*Coupar Angus.* Generally fine and dry, with frost on 23 nights.

XVIII. *Loch Shiel, Glenaladale.* The first half was very wild and stormy, the latter half very calm; with great prevalence of frost throughout.

XIX. *Watten H.R.S.* Very variable with high winds and much S. Frosts were of short duration, and the last week was mild for December.

XX. *Killarney, Woodlawn.* Squally and cloudy, with little anticyclonic or bright weather, and no ice worth naming.—*Tipperary.* A wet month, with very severe frost towards the end.—*Derrycastle* [*Killaloe*]. A favourable winter month on the whole, with very little S and no severe frost or destructive storms. The opening days were fine; from 3rd to 18th was generally wet, and from 12th to 18th

squally also—rather trying weather for out-lying cattle and sheep. Frosts prevailed from 19th to 29th, and it was generally foggy from 23rd to the close. R slightly below the average of eight years.—*Nenagh, Castle Lough.* The first three weeks were very wet; the last ten days generally dull and damp, with a few frosty days interspersed.—*Kilkishen.* Mild for the season, with no continuance of frost.—*Broadford, Hurdlestown.* Very cold, and for the first 20 days very wet also, with some severe gales.—*Miltown Malbay.* Up to 20th inclement, stormy and cold, with scarcely a day without R or H, and with heavy T and L on two days; from 20th to the close calm and mild for the season, with very slight frosts in the early mornings and very little R.

XXII. *Ballinamore, Lawderdale.* The first three weeks were wet and harsh; the last week was mild and dry.

XXIII. *Belfast, New Barnsley.* Variable till 23rd, then fine and open to the close.

OBSERVERS' NOTES ON THE YEAR 1887.

ENGLAND.

DIVISION I.—MIDDLESEX.

TEDDINGTON, GOMER HOUSE.—Drought prevailed in June, July, and the first half of August, with some periods of high temperature, but no overpowering heat. Land springs were lower at the close than at any time during the summer. The fruit crop was partial and not fine, but well ripened.

ISLEWORTH, SPRING GROVE.—R about two and a half inches below the average. The number of consecutive rainless days in the months of April and June was remarkable.

KENSINGTON, EDITH ROAD.—There were five absolute droughts during the year—14 days from February 3rd; 18 days from February 21st; 15 days from April 6th; 30 days from June 9th, and 14 days from July 30th. The partial droughts were 28 days from January 20th, with ·19 in. of R, and 41 days from June 4th, with ·13 in. of R.

KENSINGTON, ADDISON GARDENS.—The year was remarkably free from TSS, only one real storm occurring, on August 17th. Mean temp., 49°·2.

LANSDOWNE CRESCENT, W.—Memorable for the prolonged drought. Between June 3rd and August 16th (73 days) only 0·93 in. of R fell, and during 26 days (June 8th to July 5th) no R fell. Nine months were cold, and the mean annual temp. (48°·5) was the lowest since 1879.

LONDON, CAMDEN ROAD, N.—The driest year recorded since observations commenced in 1874. During 36 days (from June 4th to July 9th) only ·11 in. of R fell on 3 days; no R fell during 26 days, from June 8th to July 4th. In seven and a half months, from January 1st to August 15th, only 8·32 in. of R fell.

HAMPSTEAD, ROSLYN HOUSE.—The driest year on record.

UPPER CLAPTON, THE COMMON.—The smallest R registered

during the 24 years recorded here, 7·60 in. below the average of that period, and 1·24 in. less than that of 1864, the next driest year.

MUSWELL HILL.—The extremely dry character of the year 1887 is shewn:—(1) By the actual deficiency of the aggregate R, the total being 27 per cent. less than the average of 15 years, during which time, one year only, 1873, had a slightly smaller total. (2) By the small number of days on which R fell, 160 against an average of 187, a deficiency of about 14 per cent.; this is the smallest number during the 15 years. (3) By the small amount of the maximum falls in 24 hours; not once was an inch recorded. This has only occurred in one other year, 1883, when the largest fall was ·71 in. The maximum fall in 1887 was ·70 in. on 29th October, being the smallest maximum during the 15 years. (4) By the recurrence of drought; no R was recorded during the four following periods:—

February 4th to 16th, incl. = 13 days	June 9th to July 3rd, incl. = 25 days.
April 6th to 21st, ,, = 16 ,,	July 30th to Aug. 15th ,, = 17 ,,

The percentage of departure from the average is given below. Eight months were deficient, two in excess and two, May and August, very close to their average.

June —67 per cent.	April —41 per cent.	March + 5 per cent.
Feb. —67 ,,	Dec. —33 ,,	Nov. +12 ,,
Oct. —53 ,,	Jan. —22 ,,	
July —46 ,,	Sep. — 5 ,,	

June, on the whole, was absolutely the driest month, as R fell on only three days, no other month in the 15 years having so small a number.

UXBRIDGE, HAREFIELD PARK.—The smallest R since 1874, when 20·40 in. fell.

MONKEN HADLEY [BARNET].—Absolute drought prevailed from February 23rd to March 11th; from April 6th to April 22nd; from June 4th to July 4th, and from August 1st to August 16th.

DIVISION II.—SOUTH EASTERN COUNTIES.

HASLEMERE.—During 72 days, from June 4th to August 14th, only ·92 in. of R fell. The number of wet days (129) is the smallest recorded during 13 years.

GODALMING, HASCOMBE.—R six inches below average. The land was never thoroughly wetted from January to November.

DORKING, ABINGER.—Another dry year. Crops of all kinds abundant in spite of the dry weather.

GUILDFORD, GUILDOWN (Miss Hadden).—R 3·19 in. below the average of 17 years.

GUILDFORD, GUILDOWN (J. R. Capron, Esq).—R nearly six inches below the average of 13 years.

REIGATE, RINGLEY MEAD.—Pressure was above 30 inches from February 3rd to March 11th. Cold weather continued till May 8th. From June 4th to July 4th no R fell; from June 4th to August 13th only ·65 in. fell.

REDHILL, OXFORD ROAD.—Absolute drought prevailed for 27 days from June 7th to July 3rd, and there were three other dry periods of 14 days.

REIGATE, SPRINGFIELD.—From January 20th to March 10th, 50 days, only ·91 in. of R fell; from June 4th to July 3rd, 30 days, no R fell; from June 4th to August 15th, 73 days, only ·91 in. fell.

NUTFIELD, HOLMESDALE.—No R fell from June 4th to July 3rd a period of 30 days.

BAGSHOT, COLLINGWOOD.—The early part of the year was cold and dry, the summer hot and very dry, the autumn dry and fine. The temperature rose above 80° on 19 days, and fell to or below 32° on 120 days.

WEYBRIDGE HEATH, NETHERFIELD.—No R fell from June 4th to July 3rd, a period of 30 days.

ESHER, WESTEND.—No R fell between June 3rd and July 4th.

WALLINGTON.—The year will be remembered for the severe drought in May, June and July.

BEDDINGTON.—The R of every month, except November, was below the average, June remarkably so, no R falling after June 3rd until July 4th.

TENTERDEN, SUMMERHILL.—The driest year registered here, and the hottest in July and August.

BENENDEN, EAST END.—R even less than that of 1871. Absolutely rainless periods of 30 days from June 4th to July 3rd, and of 16 days from July 30th to August 14th. The grass was not so dried up here as in many places, and there was no failure of springs. Root crops were poor, very little seed germinating till August. The hop crop was damaged by mould and by the gale of September 2nd. A most disastrous year for all connected with land.

TENTERDEN.—The driest year since 1871. The winter, spring and autumn were cold, the summer was hot. The S.W. wind at the vernal equinox was followed by no warm spring, but by a very late

one. Drought lasted nearly as long as in 1885, and July, though not so dry, was hotter, with temperature above 70° on 28 days. The drought broke up with severe TSS on August 17th, but was renewed in October, which was an exceptionally cold month. S fell as late as May 21st, and as early as October 12th, falling on 22 days during the year. Frosts occurred on 95 days in shade and 133 on ground. In the six weeks, June 4th to July 15th, only ·14 in. of R fell; in the four weeks, July 18th to August 14th, only ·24 in., and in 73 days, from June 4th to August 15th, there was no fall of a quarter of an inch.

CRANBROOK, SWATTENDEN.—The driest year on record.

TUNBRIDGE WELLS, CAMDEN PARK.—The drought in June and July was remarkable. There was a total absence of R from June 3rd to July 4th, and in the 50 days from June 3rd to July 23rd only ·22 in. fell on 3 days. The fall in November was very heavy, and exceeded that of either of the first two quarters of the year.

ASHFORD, BETHERSDEN.—Very dry from June 3rd to August 16th.

SEVENOAKS, RIVER HILL.—No R from June 3rd to July 4th.

KESTON TOWER.—A very cold winter was succeeded by a very cold spring. The summer was dry and warm, autumn again very cold.

KESTON.—From June 3rd to July 4th only ·01 in. of R fell, which, following on a dry spring, made the total below the average.

HAYES, LAYHAM'S FARM.—The R of June 2nd and 3rd (·96 in.) conferred an extraordinary benefit on the corn crops, which were backward, owing to the cold spring. But for this R the corn crops could not have stood the dry, hot weather of the summer.

MARGATE, APSLEY HOUSE.—R about three inches below the average. No fall of an inch in 24 hours occurred, and in each of three months the total was less than an inch. Only one inch fell from June 4th to August 16th, a period of 74 days, and no R fell from June 4th to July 3rd, a period of 30 days. Mean temp. about 1°·5 below the average.

BECKENHAM, FOXGROVE.—A very dry year, with much bright sunshine, but very few TSS. Spring very late, harvest very early, wheat being cut at Shortlands during the third week in July. There was a great scarcity of insects generally, with extraordinarily few house flies, but a plague of earwigs. Total drought prevailed for 30 days from June 4th to July 3rd, and for 14 days from July 30th to August 12th. From June 4th to July 14th, 41 days, only

·09 in. of R fell on 3 days; and from June 4th to August 12th, 70 days, only ·83 in. fell on 9 days.

ERITH, CROSSNESS.—R 6·34 in. below the average of 25 years, during which period the fall has been smaller in only four years—1863, 1864, 1870 and 1884. The greatest daily fall was ·77 in. on August 30th; only twice before in the 25 years was the maximum fall less than one inch, viz., in 1883 and 1884.

ARUNDEL, YAPTON.—The smallest R since observations commenced in 1878.

CHICHESTER, WESTGATE.—R about five inches below the average. No R fell between June 3rd and July 3rd, nor from the 18th to 31st of December.

ARUNDEL, PATCHING.—The driest year recorded.

CHICHESTER, EARTHAM.—The smallest R since observations commenced in 1871.

MIDHURST, COCKING.—The R throughout the first seven months was very small. Wells failed in the last week of October, but heavy rains at the beginning of November filled the springs again. The hay crop was rather short, but was carried in excellent condition, and the wheat was very heavy and good.

LEWES, BEDFORD LODGE.—The smallest R in 20 years, the fall being 7·78 in. less than the average. From June 3rd to August 16th, a period of ten weeks, only ·37 in. of R fell.

WINCHELSEA, THE FRIARS.—Extraordinary drought prevailed in February, June and July.

BATTLE, WHATLINGTON.—No R fell between June 3rd and July 4th, a period of 31 days.

UCKFIELD.—R 4·85 in. below the average of 45 years. There were two periods of dry weather, the first from the middle of January to the second week in March, and the second from June 3rd to August 16th.

MARESFIELD, FOREST LODGE.—The driest year since 1870, the total rainfall having been 5·71 in. below the average of 30 years. R fell on 165 days as against 208 in 1886. The January fall was ·44 in., the February fall 1·67 in., the March fall ·20 in., the April fall ·38 in., the May fall ·20 in., the June fall 1·28 in., the July fall 1·73 in., the October fall 2·33 in., and the December fall ·41 in. in defect of the average amounts for the corresponding months for the 30 years' period. On the other hand, the August rainfall was ·35 in., the September fall ·09 in., and the November fall 2·33 in. in excess

of the corresponding averages. S was found in the gauge on 11 days. The summer months were characterised by great drought. The ·93 of R in June all fell during the 2nd, 3rd and 4th, and there were only nine days in August on which R was measured, the total fall for that month being ·66 in. As it happened, none of my own wells were dry, but there was something like a water famine in the neighbourhood, and I heard of 3d. a pail being paid for water within a very few miles. But for the heavy and continued R in November, the year would have been one of the very driest I have recorded. As it is, 1858 has the pre-eminence in this respect, as only 2·13 in. was measured; then comes 1864 with 23·70 in., 1870 with 24·02 in., and 1863 with 25·71 in. Against these quantities, as affecting the annual average, we have to set 1872 with its abnormal fall of 46·15 in., 1877 with 40·74 in., 1860 with 39·02 in., and so on. I may, in conclusion, reiterate what I have said on former occasions—that carefully studying 32 years' consecutive observations, I can trace no law whatever of a cyclical character, and it seems to me that to associate terrestrial atmospheric changes with cosmical causes (such as the very irregular sunspot cycles) is impossible.

CROWBOROUGH.—R nearly eight inches below the average of 17 years, but some heavy rains occurred in August, September, and November. In consequence of the low temperature during the first three months, the mean temperature of the year was below the average, notwithstanding the warm summer.

TICEHURST.—A dry year, with little S and slight frosts. Many ponds dry, especially in summer.

WADHURST, LOWER COUSLEY WOOD.—June, July, August, and September were the only months in which no S fell.

FOREST ROW, ASHDOWN COTTAGE.—Owing to the drought, nearly all the Forest ponds dried up.

RYDE TOWN HALL.—In the 12 weeks between June 4th and August 26th only ·82 in. of R fell.

WOOTTON, FERN HILL.—A period of 40 days without R was separated from another rainless period of 30 days by only one week, in which ·75 in. fell. Forest trees began to droop.

WEST COWES, HOLMWOOD.—R 7·90 in. below the average of 10 years. The longest period without R was 26 days from June 8th to July 3rd, though in the 31 days ending July 8th only ·01 in. fell. January and September alone exceeded the average.

CHRISTCHURCH, MUDEFORD.—The smallest R since 1870. No R

fell from June 3rd to July 9th, or from July 29th to August 17th. Nearly one-fifth of the total fell on four days. Rivers, brooks and wells were lower at the close than can be remembered.

PORTSMOUTH, CLOSEWOOD, COSHAM.—From Jan. 20th to August 29th, a period of 222 days, only seven inches of R fell; and of these days only 58 were "rainy." In the last four months 10·81 in. fell, but this added very little to the height of the water in the wells, which remained very low.

EMSWORTH, REDLANDS.—Within ·75 in. as dry as the year of drought, 1884. Great heat and dry weather began early in June, and lasted to August 26th. Hay harvest commenced in the middle of June, a scanty crop but exceptionally well saved. Green fly and blight most abundant. Corn harvest began two weeks earlier than usual; straw very short. By October the effects of the drought were severe, wells and brooks being dry, and continuing so longer than usual. Trees were nearly leafless by the end of that month.

SOUTHAMPTON, CADLAND.—Total R 9·76 in. below the average. The smallest recorded here in thirty years, with the exception of 1864, when only 23·32 in. fell.

HORNDEAN, ST. CATHERINE'S.—The well here (more than 330 ft. deep), was lower than for 70 years, having on September 3rd, only two feet of water.

ALRESFORD, OVINGTON.—No R fell from June 4th to July 3rd. There was very little T.

ALTON, EAST TISTED.—R about five inches below the average of ten years. A few of the wells in the chalk between here and Alton, had been dry for several weeks at the close of the year. All cereals did well, but there were very few roots.

MICHELDEVER, NORTHBROOK.—Remarkable for the summer drought. From June 3rd to July 9th, there were 36 days without any R, and from June 3rd to July 24th, 51 days with only ·12 in. The turnip crop was an entire failure.

BASINGSTOKE, CHAPEL HILL.—R about six inches below the average.

ROTHERWICK, TYLNEY HALL.—The smallest R recorded here during 14 years.

HECKFIELD PLACE.—Extreme drought in February, June, July August and September, the R of the year being six inches below the average.

HUNGERFORD, DENFORD PARK.—R 9·08 in. below the average of eight years, and 1·42 in. below that of 1884, the driest previously.

READING, PORTLAND PLACE.—January was severe till the 18th, with S and frost. April and May were very cold. June, July and part of August were warm. Only ·06 in. of R fell from June 4th to July 4th. The autumn was cold, especially October. November was wet, and in the middle of the month the frost was severe. December was cold from the 19th, but with little S.

READING, EAST THORPE.—R 6·41 in. below the average of ten years, and number of wet days 22 below the average.

DIVISION III.—SOUTH MIDLAND COUNTIES.

CHESHUNT COLLEGE.—R 10·70 in. below the average of 17 years and 1·19 in. less than the next smallest, in 1870.

BROXBOURNE.—No R fell between June 7th and July 4th.

STEVENAGE, KNEBWORTH RECTORY.—R 10·38 in. below the average of 11 years.

HITCHIN.—There have been only three drier seasons in 38 years. Not a single good ground rain occurred all the year. Rivers and ponds were at their lowest summer level at the close, people were carting water, and grass was as hard as in the summer. The mean temperature also was below the average of 30 years, only four months being above the average.

BUNTINGFORD, THROCKING RECTORY.—Of the total R, 7·39 in. or 40 per cent. fell during the day, and 10·87 in. or 60 per cent. during the night. For the first time in the eight years, I have no record of a fall in 24 hours of 1·00 in. The mean summer temperature was higher than in any of the seven preceding years.

SLOUGH, LANGLEY.—The smallest R recorded since observations commenced in 1872, being 6·83 in., or 27 per cent. below the average. Severe drought from June 4th to August 29th, only 1·32 in. of R falling in 87 days.

SLOUGH, UPTON PARK.—There were three periods of drought, in spring, summer and autumn, which were most fatal to new planting. Three falls exceeding one inch in 24 hours occurred.

WINSLOW, ADDINGTON.—1887 was ushered in by an intense frost. A long dry period set in on June 4th, no measurable quantity of R falling until July 4th. The total fall from June 3rd to the end of August was 1·75 in. Shade temperature rose to or above 80° on 20 days.

STONY STRATFORD, THORNTON.—But for the heavy fall of S in January, this would have been the driest of the last 19 years.

WOBURN SANDS.—The year was unusually dry, the R being about three quarters of the average.

OLNEY, FILGRAVE RECTORY.—The smallest R for 13 years, and 7·37 in. below the average of that period.

WATLINGTON, PYRTON.—A very dry year. Two absolute droughts occurred, one from April 4th to 22nd, 17 days; the other from June 8th to July 4th, 25 days. In the 73 days, from June 3rd to August 16th, only ·89 in. of R fell. On December 31st, the well measurement was nearly 6 ft. lower than on January 1st. TSS were few and not heavy.

FILKINS [LECHLADE].—No R between June 3rd and July 5th, nor from July 26th to August 17th.

OXFORD, ELSFIELD.—Total drought from June 4th to July 3rd.

STANTON ST. JOHN'S, WOODPERRY.—No R from June 4th to July 4th.

WITNEY, RINGWOOD FARM.—The smallest R recorded in 11 years.

BANBURY, BLOXHAM GROVE.—The frost in January was very severe. The spring, which was very cold and backward, was succeeded by a brilliant summer and autumn, accompanied by great drought and remarkably few TSS. November was very wet and gloomy. The pastures were very much burnt up, and there was very little keep for the cattle. Hay was well secured, but a scanty crop. Wheat harvest above the average. Barley and spring corn deficient, owing to the cold spring and the drought. R 6·62 in. below the average.

DAVENTRY, FAWSLEY.—Extraordinarily dry. Severe frost in January, followed by thaw and frost till the roads were a sheet of ice and almost impassable. No R from June 3rd till July 4th, and then very little. July and August very hot, but the autumn months chilly.

CASTLE ASHBY.—The smallest R in the 15 years recorded, the nearest being 1874, when 18·88 in. fell.

NORTHAMPTON.—Unusually dry; R 7·71 in. below the average of 21 years.

THRAPSTONE, HARGRAVE.—Remarkably small R; 11·05 in. below the average of 10 years. On clay soils a good wheat harvest, though other crops were generally poor, and root crops quite a failure. Cracks in the soil due to the drought could be traced to depths of

4 and 5 feet; their effects upon the fertility of the soil will doubtless be very beneficial.

PETERBOROUGH, SPRINGFIELD HOUSE.—Remarkably dry, with one month, from July 4th to July 3rd, entirely rainless. Fruit was not abundant and did not ripen favourably.

EASTON [STAMFORD].—R the smallest in 21 years and 11·30 in. below the average of 20 years.

MAXEY VICARAGE [MARKET DEEPING].—Only twice did half an inch, or more, of R fall. There were 25 consecutive days without R, from June 9th to July 3rd. The longest rainy period was 9 days, from August 29th to September 6th.

LUTON.—Thunder rains were very few and slight. S fell on 18 days. N.E. winds prevailed during March, and until the end of June the nights were cold and frosts frequent. Hot weather set in with July, and continued until the end of August.

ASPLEY GUISE, OAKLANDS.—R 7·51 in. below the average.

AMPTHILL.—No R fell from June 4th to July 3rd, a period of 30 days; only ·14 in. fell from June 4th to July 23rd, a period of 50 days; only ·69 in. fell from June 4th to August 11th, a period of 69 days.

AMPTHILL, HAYNES PARK.—R 7·75 in. below the average.

TEMPSFORD HALL.—The smallest R for 16 years. Hardly any T. June, July and August warm, October and November cold.

CAMBRIDGE, FULBOURN.—Only ·64 in. of R fell from June 5th to August 12th. The max. temp. rose to or above 80° on 17 days; the min. temp. fell below 32° on 94 days. Very little S fell, except on January 3rd, 4th and 6th.

CAMBRIDGE, SIDNEY STREET.—The driest year since observations commenced in 1865, with ·49 in. as the greatest fall on one day.

PAPWORTH HALL.—Very dry; water in many places scarce.

ELY, LITTLEPORT VICARAGE.—Notable for the absence of severe TSS and the rareness of T and L. R the smallest observed here. Gales were very short, sharp and sudden.

CHATTERIS, THE PRIORY.—Exceptionally small R; an extremely dry summer, only ·61 in. of R falling from June 3rd to August 11th; very few TSS.

CHATTERIS, SLADE FARM.—R about nine inches below the average, all the months being dry except May, the R of which was ·30 in. above the average.

UPWELL.—R 8·54 in. below, and less than two-thirds of, the average of 15 years.

THORNEY, WRYDE HOUSE.—The driest year on record; favourable for agricultural operations.

DIVISION IV.—EASTERN COUNTIES.

MALDON, NORTON HALL.—The smallest R since observations commenced in 1871.

HARLOW, SHEERING.—R 7·29 in. below the average of 20 years.

DUNMOW, HIGH RODING.—R 6·24 in. below the average of 22 years, and number of wet days 22 below the average.

EARL'S COLNE, CHALKNEY HOUSE.—Dry, but not so much so as 1884, when only 17·29 in. of R fell. June was remarkably dry, the total, ·29 in., falling on one day. Harvest began at the end of July.

DEDHAM, THE ROOKERY.—A delightful year, with R much below the average, and no heavy fall. Corn, on all but very light lands, yielded a good crop and was well harvested. No R of any account fell during the ingathering of the hay, which was mostly a light crop.

SUDBURY.—January was very cold, with S at the commencement and fog in the later part. Dry, cold weather prevailed in the middle of February, and very sharp night frosts occurred throughout March. April was dull and rather cold. June was very dry and hot, with only two rainy days. July also was dry at the commencement, and very hot throughout. No R fell in August until the 16th, after which it was unsettled. September was wet at first, but finer at the close. Cold nights were general in October, with occasional S. November and December were rainy and unsettled.

IPSWICH, BISHOP'S HILL.—R 5·30 in. below the average. March, September and October had falls of R slightly, and November 1·17 in. above the average, but in all the other months the falls were below the average, June being very dry.

HAVERHILL, GREAT THURLOW.—Owing to the exceedingly dry summer the R was considerably below that of any previous year, with the exception of 1884, when 16·44 in. fell. The drought greatly affected the water supply for stock purposes, ponds being dried up which had not been seen dry before.

BURY ST. EDMUNDS, DRINKSTONE PARK.—R the smallest since observations began in 1865.

LEISTON, ALMA COTTAGE.—R far below the average. A remarkable summer, with 36 consecutive days without R.

IXWORTH, WALSHAM-LE-WILLOWS.—Summer unusually dry, especially as regards June. Roses failed for want of water, and, for lack of other food, birds devoured the fruit.

IXWORTH, BARNINGHAM.—The smallest R in a record of 21 years, with the exception of 1871, when only 15·70 in. fell.

DISS.—A very cold spring (with much S in March, and some as late as April 14th), was followed by a glorious summer, with a good haysel and splendid harvest weather. Corn crops, however, especially wheat, were light. The early autumn was wet, and the later part cold, S falling on October 12th, and then after a short spell of finer weather, winter set in in earnest.

GELDESTON [BECCLES]. The smallest R in 22 years, and 6·70 in. below the average of 20 years. In June only ·16 in. fell, the smallest amount registered for any month in the same period.

NORWICH, ESSEX STREET.—The smallest R since 1874, when only 19·45 in. fell. The fall in the Eastern Counties was about four inches below the average of some 80 years. June and July being very dry, the turnip crop was almost a general failure on the stiff lands in Norfolk.

TERRINGTON.—The smallest R registered here.

HILLINGTON.—R 7·26 in. below the average of 21 years. The falls in only three months, January, March and October, were above the average. A long, cold winter was followed by a dry summer, no R falling between June 2nd and July 4th, or from 1st to 11th of August. A wave of exceptional cold prevailed from November 15th to 21st.

HOLT, LETHERINGSETT HALL.—The driest season since 1873.

DIVISION V.—SOUTH WESTERN COUNTIES.

SALISBURY, ALDERBURY.—R 9·69 in. below the average of 10 years. S lay on the ground from December 26th, 1886, till January 20th, 25 days. May was unusually and persistently cold, and vegetation was backward. No R fell in 31 days, from June 3rd to July 3rd, and in 87 days from June 3rd to August 29th only 1·07 in. fell.

SALISBURY.—The average R of 10 years, 1877–86, was 31·97 in. The fall of the wettest of those years, 1877, was 37·36 in., and that

of the driest, 1884, 25·65 in. The R of the past year fell short of the average by 10·32 in., and of that of 1884 by 4·00 in. Yet the R was so distributed that the driest month occurred not in 1887, but in 1885, when only ·16 in. was recorded in July. The greatest fall in any month of the same 10 years occurred in October, 1882, when 7·88 in. fell.

DEVIZES, SOUTHGATE HOUSE.—The driest year since observations began in 1878.

BISHOP'S CANNINGS.—R 10·61 in. below the average of 10 years. Great drought prevailed during the summer, though heavy R on June 2nd saved the potatoes and increased the hay crop. There was very little after-grass, the frequent slight showers in July drying up as fast as they fell. Very little honey was made after July 7th. Severe frosts occurred in October.

POOLE.—Springs were lower at the close than had been previously known during 43 years' observations.

POOLE, THE YARRELLS.—R 11·46 in. below the average of 10 years.

WIMBORNE MINSTER, CHALBURY.—The driest year on record.

SALCOMBE, THE MOLT.—Remarkable for the great absence of T, and for some very heavy gales of wind.

PLYMOUTH, HOBART TERRACE.—There were four days on which more than an inch of R fell. S fell on two days, both in March; H fell in January, April, May, October, November and December. The amount of sunshine was 42 per cent. of the possible duration.

TORQUAY, THE STRAND.—Except in November there was in each month a period of not less than 10 days during which no R fell. The longest dry period was from June 2nd to July 8th. The longest wet period was from October 28th to November 9th, in which time 4·09 in., or very nearly one-fifth of the total for the year, fell.

TORQUAY, BABBACOMBE.—The coldest year since 1879. R 13·87 in. or 36 per cent. below the average, the least ever observed in this neighbourhood. The number of wet days, amount of cloud, humidity, number of gales (35), TSS or T (4), and W. winds (54 days) were less, the mean pressure was higher, and the number of grass frosts (153) and of N.E. winds (80 days) were more than any observed in the preceding 10 years. The excessive number of days on which N.E. winds blew was remarkable, as they exceeded any of the remaining 7 points. In the previous 10 years the most prevalent wind was S.W., except in 1878 when it was W. The longest dry

period was 31 days, from June 7th to July 7th, which was the longest observed since the record was commenced in 1876. A dry period of 15 days also occurred from April 6th to 20th. Only ·25 in., on 4 days, fell during 39 days, from June 3rd to July 11th. The longest wet period was 17 days, from December 4th to 20th; there was also a wet period of 16 days from October 26th to November 10th. R exceeding an inch occurred on one day only. June (with the least monthly fall yet observed), July and August were hot, the remaining 9 months were cold, especially March and October. S fell on 20 days, but only covered the ground on 7 days; H on 21 days; L on 9 days only; fog on 21 days. Vegetation was very backward in spring; pastures were very bare in summer, and great scarcity of water prevailed till November. Harvest good, but hay light.

TORQUAY, WATCOMBE PARK.—June 7th to July 7th, a period of 31 days, absolutely without R.

ASHBURTON, HOLNE VICARAGE.—The driest year since observations commenced in 1870.

TAVISTOCK, PUBLIC LIBRARY.—R 18·96 in. below the average of 18 years. In only three years, from 1844 inclusive, has a smaller amount fallen, viz., in 1854, 28·05 in.; in 1855, 28·53 in; and in 1858, 30·53 in.

WIDECOMBE VICARAGE.—Remarkably dry for the moor; R much below the average.

BUDLEIGH SALTERTON, EAST BUDLEIGH.—A very remarkably small R. In 7 months, February to August, only 6·92 in. fell, and in June only ·05 in. Hay crops were very small, much barley had not strength to shoot forth, mangolds were about two-thirds of a crop, turnips almost nil, but the deep-rooted wheat was above an average crop. So dry had the ground become that 6·71 in. of R, which fell on 16 consecutive days, from October 26th to November 10th, did not cause the Otter to overflow.

CLEVELANDS [LYME REGIS.]—R 11·53 in. below the average of 20 years, the driest year of the period being 1870, when 22·24 in. fell. The special feature of 1887 was drought; during the six months from February to July only 6·35 in. fell, as compared with 9·15 in. in 1868, and 8·63 in. in 1870.

EXETER, ST. LEONARD ROAD.—No R fell from June 3rd to July 3rd.

EXETER, BRAMPFORD SPEKE.—Spring cold and somewhat windy;

June surprisingly dry; September fine and sunny, with a great abundance of mushrooms; October rather foggy and frosty.

AXMINSTER, FURZEBROOK.—Hot and dry from June 1st to August 26th; wells failed and springs were low. The harvest and the apple crop were abundant. No TSS.

PETROCKSTOW, HEANTON SATCHVILLE.—R 14 or 15 inches below the average. Crops of all descriptions suffered severely from drought, especially during June, July and August. Springs and brooks were very low all summer, and the former had scarcely attained their usual height at the close. Great scarcity of water prevailed in this district.

TORRINGTON, LITTLE SILVER.—North Devon did not, on the whole, suffer so much from the drought as East and South Devon, though the Taw and the Torridge were extraordinarily low, and water mills in the lower reaches of both rivers had to obtain aid from travelling steam engines.

SOUTH MOLTON, ROSE ASH.—The driest year since records commenced in 1872.

ILFRACOMBE HOTEL.—The smallest R in this district for about 30 years. In the country districts in June and July many of the springs, which were never before known to fail, dried up.

ST. AGNES.—R 15·28 in. below the average of 20 years.

ST. AUSTELL, TREVARNA.—The smallest R for upwards of 22 years.

PAR STATION, PENELLICK.—The smallest R recorded here, and the driest summer since 1859.

EMPACOMBE [DEVONPORT].—Extremely dry. Springs, not known to fail before, failed in many places; a wretched year for the agriculturists; grass and hay very deficient, wheat tolerably good, barley much below the average, and oats still more so; roots a failure, not a quarter of a crop. The grub, one of the farmer's pests, abounded.

ST. JOHN'S [DEVONPORT].—The smallness of the R in May, June, July and August produced great inconvenience in this neighbourhood, and seriously affected the hay and root crops. There is an everflowing spring in this village, and for three months water carts were busily employed all day long drawing water to the farms and forts around.

LOSTWITHIEL, LANWITHAN.—There were 37 consecutive days in June and July on which no R fell, except ·09 in. on June 5th. Great

scarcity of water prevailed, which is a very rare occurrence in this county.

LISKEARD, DEAN TERRACE.—The smallest R in 24 years.

BODMIN, CASTLE STREET.—A year of unprecedented drought, and the smallest R recorded during 38 years.

BODMIN, FORE STREET.—R 14·52 in. below the average of 37 years, every month having been deficient, except September, which was 1·06 in. above the average. June was extremely dry. The last three months were very mild.

ALTARNUN.—Rainfall 25·68 in. below the average of 24 years and 8·13 in. less than that of 1864, the driest year recorded previously.

BUDE.—The drought of the summer season proved very trying; though the public supplies of water held out fairly well, much inconvenience was felt in the surrounding district.

CREWKERNE, BINCOMBE HOUSE.—No R fell in the 14 days from February 25th to March 10th, in the 17 days from April 5th to 21st, in the 35 days from June 3rd to July 7th, or in the 20 days from July 27th to August 15th.

YEOVIL, WEST COKER.—Very few TSS, though the summer was unusually hot.*

ILMINSTER, WHITE LACKINGTON.—R about two-thirds of the average of 16 years and 4·92 in. less than that of 1884. Number of wet days 50 below the average. February, March, and the last three months were colder than the average.

SOUTH PETHERTON.—R nine inches below the average of 24 years, ·04 in. below that of 1864, and ·13 in. below that of 1870.

TEMPLE COMBE, STOWELL RECTORY.—Mean temp. (47°·0), 0°·9 below the average of five years. Mean humidity 5 per cent. below the five years' average. 1,587 hours of bright sunshine were recorded.

MILVERTON.—An extraordinarily dry year; R 11·04 in. below the average.

MILVERTON, HALSE.—Very dry and hot, particularly in June, July and August.

MILVERTON, FITZHEAD COURT.—The coldness of the nights, as well as the absence of R, was a feature of the summer.

SOMERTON, BUTLEIGH COURT.—Very dry; wells dry and water short everywhere.

EXFORD RECTORY.—The R throughout the year was small, from February to August remarkably so. In June the fall was less than

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I think that it is usually so; in 1868 for example.—G.J.S.

a quarter of an inch. The longest drought was from June 9th to July 5th, 27 days. In April, and again in July and August, there were 15 successive days without R; in February and March 14.

FROME, ROCK HOUSE, MELLS.—From June 3rd to July 9th only ·08 in. of R fell on three days; from July 30th to August 17th only ·03 in. on two days.

STON EASTON.—R 10·27 in. below the average of 19 years.

EAST HARPTREE, HARPTREE COURT.—Extremely dry. In the seven months, February to August, the fall was 9·31 in. below the average. Springs did not rise until November 3rd, and from July up to that date water was very scarce.

AXBRIDGE, WINSCOMBE.—In June and July there were 35 consecutive days without R.

BATH, ROYAL LITERARY INSTITUTE.—R nine and a half inches below the average of 27 years; the fall in each month, except March, which was slightly in excess, being below the average. The range of temp. was 74°·6.

DIVISION VI.—WEST MIDLAND COUNTIES.

FAIRFORD, KEMPSFORD.—Very dry and hot; a very bad summer for crops on light land.

FAIRFORD, HATHEROP RECTORY.—The smallest R on record.

FRAMPTON-ON-SEVERN, SAUL LODGE.—R 8·32 in. or 27 per cent. below the average of ten years, and 6·22 in. or 22 per cent. below that of the last 30 years, during which period there have been only four years with a smaller fall.

NEWNHAM-ON-SEVERN.—A remarkable drought. R about ten inches below the average of this district.

WESTBURY-ON-SEVERN VICARAGE.—R 12·28 in. below the average of 13 years.

NORTHLEACH, HAMPNETT RECTORY.—Absolute droughts occurred from February 25th to March 10th, 14 days; from April 6th to 21st, 16 days; from June 4th to July 3rd, 30 days; and from July 27th to August 11th, 16 days. Partial drought prevailed from February 4th to March 4th.

GLOUCESTER, LOWER BARTON STREET.—R about two-thirds of the average. February unusually dry, R only ·53 in. A heavy fall on June 2nd (1·30 in.), was followed by a long drought, no R falling from June 3rd to July 4th, and very little until the end of

August, not enough to affect the drought, which practically lasted till the last week in August, or nearly three months. R in 24 hours reached 1·00 in. on only 2 days. The drought and heat were the most marked characteristics of the year; there were few gales, and there was very little S or T.

CHELTENHAM, BATTLEDOWN.—Excessive drought prevailed in many months. From February to April it was very dry, and from June 3rd to July 4th no R fell. The springs were lower at the close than had ever before been known.

TEWKESBURY, BECKFORD.—Absolute droughts prevailed from February 3rd to 18th, 14 days; from February 24th to March 11th, 14 days; from April 5th to 22nd, 16 days; from June 3rd to July 5th, 31 days; and from July 28th to August 13th, 15 days. Partial drought prevailed from June 3rd to July 14th, only ·14 in. of R falling in the 40 days. From January 19th to April 4th (75 days) only 1·98 in. fell on 21 days; from January 19th to April 22nd (92 days) 2·05 in. on 22 days; from June 3rd to August 17th (74 days), 1·12 in. on 11 days; and from January 19th to August 17th (209 days), 8·08 in. on 59 days.

WYASTONE LEYS [MONMOUTH].—From April 7th to 21st (14 days) no R fell; from June 4th to July 4th (28 days) only ·01 in. (on June 6th) fell, and from July 29th to August 11th (14 days) no R fell.

ROSS, THE GRAIG.—The driest year since 1870, when 20·17 in. fell. With the exception of that year and of 1864, when 19·22 in. fell, 1887 was the driest since 1858. Only one fall exceeding an inch in 24 hours occurred. The falls of May and November were slightly in excess, but every other month was below the average. Very dry periods occurred from January 20th to April 21st, and from June 4th to August 15th. July and parts of June and August were warm, the rest of the year was very cold, especially the spring and autumn. Hay and corn crops were good, and well got in; other crops were more or less affected by drought. TSS were infrequent, and there were not many heavy gales. Winter set in early.

MUCH DEWCHURCH, BRYNGWYN.—A backward spring, a hot, dry summer, an early harvest, and a cool autumn with slight frosts. On the whole, a good agricultural year; the driest since 1870.

LEDBURY, PUTLEY COURT.—One long drought occurred which, so far as vegetation was concerned, did not break up till October 29th. The R then did not penetrate more than about a foot deep, the ground before being like iron.

HEREFORD, HAGLEY PARK.—R unprecedentedly small.

LEDBURY, COLWALL.—R 15·64 in. below the average of 9 years. In June the month's total (1·40 in.) fell on the first three days, after which till July 14th no R fell excepting ·21 in. on July 4th.

LEDBURY, CANON FROME.—A dry, hot summer, with no R from June 4th to July 3rd. Ditches and pools, which had not failed before, dried, and wells, though not empty, were low. Very little T.

HEREFORD, BURGHILL.—Drought prevailed from February 3rd to 16th, from February 25th to March 10th, from April 5th to 25th, from June 4th to July 3rd, and from July 28th to August 11th. From January 8th to October 26th only 10·21 in., or less than an inch per month, fell. In 49 days, from January 20th to March 10th, only ·52 in. fell, and in 50 days, from June 4th to July 23rd, only ·41 in. Springs were very low at the close, and falling rather than rising. No fall of an inch of R occurred, and only four falls over ·50 in.

PEMBRIDGE, MARSTON.—Very dry, with only 19 days on which ·25 in. or more of R fell. February was very dry; only ·04 in. fell during the first 20 days of April; only ·03 in. from June 3rd to July 4th, during which time it was very bright and hot; and what R fell till the end of August was soon dried up. Only ·82 in. on 11 days fell from September 7th to October 26th. Most of the wells were dry from July to the close. T was heard on only 3 or 4 days. Rainy days 49 below the average.

LEOMINSTER, FARM.—Remarkable for long drought. Excepting 1870, when 18·87 in. fell, there is no record of so dry a year. There was no fall of an inch in 24 hours, and November was the only month with R above the average.

BISHOP'S CASTLE, MORE RECTORY.—The winter, though not unprecedented in severity, was so in its duration, and low temperature prevailed up to June 4th. The driest season yet recorded here, and unusually free from great tempests.

CHURCH STRETTON, WOOLSTASTON.—By far the smallest R since the record commenced in 1865.

MARKET DRAYTON, BUNTINGSDALE.—Frost and S prevailed in the first half of January, but the latter half was milder. Frost occurred on 14 nights in February, and the spring was cold and late. It was very hot and dry through June and July. From November 15th to 24th frost prevailed on each night, and in December, which was a cold month, there were 21 night frosts.

ADDERLEY RECTORY.—The driest year since observations commenced in 1869.

HANDSWORTH.—R 11·35 in. below the average; the fall being deficient in every month, though June was within ·01 in. of the average. Drought prevailed from June 8th to July 4th, and only ·74 in. of R fell between June 8th and August 12th.

PATSHULL GARDENS.—Cold at the beginning, with twelve and-a-half inches of S in January. Summer very hot. The intense heat and the parched state of the soil kept vegetation in check and consequently after the autumn rains came it made a flow of sap that had a tendency to make a second growth.

BURTON, SHOBNALL.—R 10·06 in. below the average of 12 years. From June 10th to July 4th, 25 days, no R fell. S or H fell on 11 days.

BURTON, DERBY ROAD.—No spring weather, a short and almost tropical summer, and a R not two-thirds of the average. Except January, every month had a R below the average, and that month was marked by a flood. The shallow wells in the town suffered severely from the drought. It is rather remarkable that in spite of the intensely hot summer only three thunderstorms were recorded.

CHEADLE, TEAN VICARAGE.—Cold and dry. Rainfall 14·72 in. below the average, the fall being deficient in 10 months. The temp. also was below the average in every month but two, but there was more than the usual amount of bright sunshine.

LITTLE MALVERN, THE FARM.—Very dry, R about eight inches below the average. The summer from June 4th to the end of August was very sunny, but the heat was not excessive owing to the prevalence of winds from N. and E.

GREAT MALVERN, HORNYOLD TERRACE.—The smallest R registered in 15 years.

GREAT MALVERN, MADRESFIELD COURT.—An exceedingly dry season, with intense heat and prolonged drought. What R came fell in small quantities, and was almost immediately lost by evaporation. Many springs were almost dry at the close.

WORCESTER, ST. GEORGE'S SQUARE.—R below the average of 12 years in each month except January. The spring was cold and dry, but after June 4th, a rapid rise of temp. took place, and from 14th to 19th, 80° was exceeded each day.

TENBURY, ORLETON.—The smallest R in 57 years, with the ex-

ception of 1854, when 20·73 in. fell. In only two other years, 1844 with 21·73 in., and 1864 with 21·79 in., was the fall less than 24·00 in. The number of wet days was the smallest recorded. Mean temp. 1°·5 below the average of 26 years. There was a large proportion of sunlight and clear sky, and generally the days were warm and the nights cold.

ACOCKS GREEN [BIRMINGHAM].—The driest year on record. R nearly nine inches below the average, or not three quarters of the usual fall, and about a quarter of an inch less than that of 1884, the next driest year recorded.

LEAMINGTON, UPPER PARADE.—The smallest R in 26 years. No R fell from February 3rd to 16th, from February 25th to March 10th, from April 6th to 21st, or from June 4th to July 3rd.

HENLEY-IN-ARDEN, BARRELLS PARK.—R 13·27 in. below the average of 15 years.

KENILWORTH, THE SPRING.—Absolute droughts prevailed from April 6th to 22nd, 17 days; from June 4th to July 3rd, 30 days; and from July 29th to August 11th, 14 days. During the 36 days from February 3rd to March 10th, there was only one day with an R exceeding ·04 in., and the total was only ·30 in., and during the 26 days from March 28th to April 23rd, there was only one day with a fall exceeding ·04 in., and the total was only ·31 in.

RUGBY SCHOOL.—R 11·05 in. below the average of 10 years.

COVENTRY, RYTON-ON-DUNSMORE.—The smallest R recorded in ten years.

COVENTRY, PRIORY ROW.—The smallest R recorded in 21 years, except 1870, when 21·30 in. fell. The weather was not so hot, and the drought did not parch up vegetation or cause so much inconvenience or scarcity of water as in that year. R exceeding an inch fell on three days.

DIVISION VII.—NORTH MIDLAND COUNTIES.

ROTHERBY HALL.—No R fell from June 4th to July 3rd, and on no day did one inch fall.

MELTON MOWBRAY, COSTON.—A very remarkable year, the R being 11·75 in. below the average of 12 years, and 2·56 in. lower than the lowest previously recorded, 19·18 in. in 1874. February, April, June and August were exceptionally dry, and absolute drought prevailed from June 4th to July 3rd. Mean temp. 45°·6.

BELVOIR CASTLE.—A dry season which had a beneficial effect upon the land, so that it worked better than for years.

UPPINGHAM, WEST DEYNE.—Exceptionally dry; R 12·13 in. below the average of 13 years, and the smallest since 1873, when the record began. In 1874, 20·04 in. fell, and in 1884, 18·97 in.; in no other year since 1873, has the R been below 26·21 in.

KETTON HALL [STAMFORD].—A very dry year, with little more than half an ordinary R. Very cold up to May 8th, and no summer weather until June 4th, then warm and bright and very dry until September 1st; very changeable after, with severe frost on September 29th and several subsequent days.

OAKHAM, WHITWELL.—All springs in the neighbourhood were dry at the close and water was much wanted. A stream through observer's garden never known to fail, ran more feebly than at any previous time for ten years. Late in the summer pastures were very dry and bare. Crops were of a good colour, but wanting in quantity, and grains were very thin.

STAMFORD, CASTLE COTTAGE.—The year was marked by the absence of heavy or continuous R. The springs were lower at the close than ever known before.

LONG SUTTON.—The smallest R since 1874.

SPALDING, PODE HOLE.—The smallest R in a record of 59 years, and 1·13 in. below that of 1874, the next driest year. Water in the rivers was lower than ever before known, outfall sluices were shut down for many months, and hundreds of cisterns were empty.

GRANTHAM, SALTERSFORD.—The smallest R registered here, and springs were at the lowest flow ever known. In 1884, when only ·75 in. more R fell, the springs did not suffer as in 1887, because in July of that year 4·58 in. fell rather suddenly, when the ground was full of large cracks; the water, therefore, got into the springs without saturating the ground. Some springs which usually take about three weeks to show any increase after R, showed an increase in three or four days in that month.

BOSTON, GRAND SLUICE.—R 10·07 in. below the average of 20 years. The fall of June, July and August was only 2·17 in., the smallest recorded for that period. Owing to the abnormal deficiency during the summer the period of drought was protracted and severe.

STUBTON [NEWARK].—The driest year recorded, but the scarcity of water was not so great as in previous years of drought.

SLEAFORD, BLOXHOLM.—The year will be remembered for its

excessive drought, the R being nearly ten inches below the average. Crops of all kinds were light in consequence and water was very scarce, many wells being still very short at the close.

SPILSBY.—A late spring, a dry summer and a small R.

HORNCASTLE, BUCKNALL.—Remarkably dry, the only drier year on record being 1874, when 17·22 in. of R fell.

LINCOLN, DODDINGTON.—The smallest R during 16 years' record, the next driest year being 1874, when 16·54 in. fell. In each of five months, February, June, July, August and December, less than one inch fell, and there was absolutely no R from June 3rd to July 4th. Much harm was done by the long drought during summer, and inconvenience was caused throughout the year from the wells and ponds being dry.

LINCOLN, D'ISNEY PLACE.—Very dry; no R fell from June 4th to July 5th.

ALFORD, THE BURIAL GROUND.—No R fell from June 4th to July 3rd.

LOUTH, GOSPELGATE.—R 6·02 in., and number of wet days 18 below the average.

LOUTH, WESTGATE.—R 7·32 in. below the average of 10 years.

RIBY.—With the exception of three heavy falls in October, the R almost all came in small quantities. S fell on 24 days.

ULCEBY, LIMBER GRANGE.—S fell on 32 days; the last in spring on May 21st, and the first in autumn on October 15th. The spring was cold and dry, R falling on only six days from January 1st to March 22nd, while S fell on 21 days. Cold N.E. winds prevailed until the end of June, with hot sun. July was excessively hot with constant signs of R, but little fell, except in T showers. August was also hot, with T showers on eight consecutive days, which altogether produced only one inch of R. At the end of September, cold, drying N.E. winds returned. Severe frosts prevailed at the close of the year and S covered the ground.

APPLEBY.—The driest year in 29 years' record, with not one month up to the average, though September was close upon it.

CROPWELL BISHOP.—R 8·40 in. below the average of 15 years, and the smallest in that period, though the fall in 1874 was only ·01 in. more.

NOTTINGHAM, PARK HILL.—Remarkable for extreme dryness, not only in the summer months, but throughout. No daily fall reached three quarters of an inch, and only one exceeded half an inch. No

monthly fall reached two inches, and in three months the fall did not reach an inch. An absolute drought of 30 days occurred in June and July, both months being exceptionally dry and hot.

NOTTINGHAM, STRELLEY HALL.—The R was fully ten and a half inches below the average; the fall for January being about the average, and for the remaining 11 months considerably below it, the deficiency in June being 1·91 in. All supplies of water became very low, and had not increased at the close.

NEWARK, SHELTON RECTORY.—Drought from June 3rd to July 3rd, almost unprecedented.

SOUTHWELL, OXTON.—The total rainfall 16·68 in. was remarkably small, being about nine inches or 36 per cent. below the average. This year's total appears much the same as the fall in 1870, and rather less than the fall in 1874. With the exception of January, the fall of each month was considerably below the average. From June 3rd to July 4th, no R fell, and during a period of 49 days, from January 19th to March 9th, only ·79 in. fell. Though water was very scarce for some months in this district, I am informed that the wells and springs near the town were hardly affected by the long drought.

MANSFIELD, MARKET PLACE.—The smallest R registered during 18 years; and 10·74 in. below the average. The totals for every month below the average. A cold, dry, late spring; a warm, dry summer; a cold, dry autumn with early harvest; and a changeable, open winter with cold, frosty nights, often followed by dirty, foggy days.

WORKSOP, HODSOCK PRIORY.—Rainfall deficient throughout the year; spring very late; June, July and August warm and fine; much bright sunshine. In spite of the warmth in summer the mean temperature (46·6) was lower than in any of the previous 11 years, except 1879; this was to a great extent due to the low night readings even in June and July, they were only just up to the average, while in several months they were exceptionally low. The shaded thermometer fell below 32° on 103 nights, which is not quite so many as in 1879, but on the grass there were 178 frosts, which is many more than in any previous year. The only month in which rainfall was at all above the mean was January; the total was about 36 per cent. below the average. S unusually deep in January. 1420 hours, or 32 per cent., of sunshine were measured, which was more than in any of the previous 6 years, and 176 hours above the mean. The

only really dull month was May, while the largest excesses were in February, June and July. There were only 66 sunless days. The proportion of north-easterly winds was larger than usual; there were no important gales during the year. Harvest very early; the hot weather suited the strong land, especially for wheat, but crops on sandy soils suffered much from the drought, especially the spring corn; however, the crops were harvested in capital condition, and though the straw was short, the quality, especially of the barley, was much better than the year before. Grass was very scarce, and the pastures were much burnt up.

DERBY, ELVASTON.—Remarkable for drought, the R being below the average in ten months, the exceptions being January and September, when the fall was about, or slightly above, the average. Absolute drought prevailed from June 3rd to July 4th. The mean temperature was below the average from January to May inclusive, and from September to December, but considerably above it from June to the end of August. Mean temp. 46°·6.

WIRKSWORTH, HOLLOWAY.—The smallest R by eight inches during the eleven years recorded, 26 inches less than that of 1882, and 15·63 in. below the average.

MATLOCK, BATH.—The smallest R for many years, and 15·90 in. below the average of the last 13 years, during which the total has always exceeded 30 inches, and generally 40 inches.

STRETTON LINDWAY RESERVOIR.—The springs ceased to flow for several months, and the storage reservoirs here and in adjoining districts were nearly dry.

CHESTERFIELD, BRIMINGTON HALL.—From January to the end of May cold, sunless weather prevailed, and vegetation was very backward. Fine, sunny and dry weather commenced early in June and continued to the end of August. R much below the average.

DIVISION VIII.—NORTH WESTERN COUNTIES.

CHESTER, ROWTON GRANGE.—The longest dry period was from June 3rd to July 4th, during which time only ·03 in. of R fell.

CHESTER, NEWTON NURSERIES.—From February 1st to March 10th, 38 days, only ·41 in. of R fell, and from June 4th to July 12th, 38 days, only ·42 in. fell. R exceeded one inch on two days. The sun appeared on 290 days.

MACCLESFIELD, THE PARK.—R the smallest since 1850. The

prevalence of E. and N. winds during the first six months, and especially during the hot, bright days of June, produced a great amount of evaporation, which resulted in an aridity of the soil never before experienced.

CHELFORD, ASTLE HALL.—The smallest R since observations commenced in 1875.

NORTHWICH, WINNINGTON.—The driest year since 1870, when only 19·66 in. of R fell.

NESTON, HINDERTON.—The driest year of which there is any record in this district. R nearly 26 per cent. below the average of 18 years.

THELWALL, HIGHFIELDS.—The driest year recorded here. R 11·35 in. below the average of 16 years, and 26·79 in. below that of 1872, the wettest of those years. [Therefore at this station the max. has been much more than twice the min.; taking the 16 years mean as 100, the max. was 148, and the min. (1887) 64.]

AIGBURTH, KELTON.—The smallest R recorded, being 11·09 in. below the average of ten years, and the number of wet days 44 below the average. During 30 days, from June 4th to July 3rd, only ·06 in. of R fell on June 8th. The grass crop was, however, saved by the heavy R of June 2nd and 3rd, when 1·37 in. fell.

LIVERPOOL, GROVE PARK.—R by far the smallest amount recorded here.

LIVERPOOL, WALTON-ON-THE-HILL.—R 11·67 in. below the average of 17 years, and the smallest on record here.

BLUNDELLSANDS, PARK CORNER.—R the smallest since the record began in 1876; 9·71 in. below the average of 11 years, and 3·44 in. less than the next smallest, in 1884. The Rivington reservoirs were so low at the close, that it was contemplated getting a temporary supply from additional wells in the New Red Sandstone elsewhere to eke out the amount required for Liverpool.

MANCHESTER, HIGHER BROUGHTON.—A year of remarkable drought. No R fell from June 10th to July 4th.

MAGHULL.—The driest year on record.

BOLTON-LE-MOORS, THE FOLDS.—R 19·15 in. below the average of 56 years, and 6·71 in. below that of 1844, the driest year in that period.

SOUTHPORT, HESKETH PARK.—R below average in every month, and the total 12·85 in. below the average of 15 years, and 3·47 in. below that of 1873, the driest year of the period.

CHORLEY, WHITTLE-LE-WOODS.—The temperature fell to or below 32° on 109 nights, a number very largely in excess of previous years. The longest periods of drought were 14 days, from February 24th to March 11th, and 25 days, from June 8th to July 4th.

OVER DARWEN, ST. JAMES'S.—The driest year in a record of 15 years. R 17·03 in. below the average, and 9·37 in. less than that of 1884, the next driest. September contributed upwards of 20 per cent. of the total. More than an inch of R fell on 4 days.

LYTHAM, WOODVILLE TERRACE.—The smallest R in 11 years' record, being 13·27 in. below the average of 10 years, 6·88 in. less than that of 1885, the next driest year, and considerably less than half that of 1877.

BLACKPOOL, SOUTH SHORE.—R 8·80 in. below the average of 32 years, and the smallest in any year.

ECCLESTON, ELSWICK LODGE.—Remarkably dry. R 13·06 in. below the average, and 6·75 in. below the two driest years in the previous 15, 1879 and 1885, in each of which 32·21 in. fell. Number of wet days 55 below the average. Strawberries, gooseberries and raspberries were burnt up. Apples, pears and plums yielded good crops, and the potato crop, where not injured by early frost, was the largest and best known.

ST. MICHAEL'S-ON-WYRE.—The driest year since observations began in 1876.

CLITHEROE, DOWNHAM HALL.—The driest of the 33 years recorded, the R being 12·74 in. below the average of 30 years.

LANCASTER, SOUTHFIELD.—R the smallest in any year since 1783.

LANCASTER, ESCOWBECK, CATON.—The driest of 27 years recorded, and supposed to be the driest in the century.

HEST BANK.—The driest year since observations began in 1848.

BARROW-IN-FURNESS.—The driest year since observations commenced in 1867. No R fell in 28 days, from June 7th to July 6th.

ARKHOLME, STORR'S HALL.—R thirteen inches below average, and 3·21 in. lower than the driest of the previous 22 years. May, June, July and August were very dry, as were also the last three months. The springs were generally dry from July to October. The dryness much improved the state of the ground, which had suffered greatly from a series of wet years.

CARTMEL, HOLKER.—R seventeen inches below the average of 13 years. A cold spring was succeeded by a remarkably dry, hot summer. One of the best fruit seasons for several years.

ULVERSTON, POAKA BECK.—The driest year since observations commenced in 1867. No R fell in 26 days, from June 7th to July 4th.

CARTMEL, PIT FARM.—The driest year since observations commenced in 1856. An unusual number of night frosts occurred throughout the year, there being only three months without frost, and one sharp frost occurring in August. The wheat crop was the heaviest during 32 years. The turnip crop was also remarkably good, but the hay was not much above half a crop.

CARTMEL, BROUGHTON HALL.—Unusually dry in every month. R about three-fifths of the average of 19 years. Only once did an inch of R fall; usually we have six such falls. The natural springs, with which this portion of the Lake District abounds, had at the close only partially recovered from the drought of the seven months February to August.

ULVERSTON, COLTON.—R only 63 per cent. of the average of 14 years, and wet days 38 less than the average.

BROUGHTON-IN-FURNESS.—The driest year on record; but it is stated that 1826 was drier. Springs and streams never dry before were completely dried up for months; yet, owing to the Water-works, there was no distress, except for cattle on the hills.

HAWKSHEAD, GRIZEDALE.—Exceedingly dry and sunny. Hay scarce, grain good, straw short. Water was almost entirely gone from all the streams in this valley.

DIVISION IX.—YORKSHIRE.

SHEFFIELD, WESTON PARK.—An exceedingly small R. From June 8th to July 4th no R fell. The supply of water in the dams of the Water Company diminished by 1400,000,000 gallons during the year.

WATH-UPON-DEARNE, CHAPEL STREET.—R below the average in every month except January, which was about 20 per cent. above the average. During 25 years only two were drier: 1864, when 15·41 in. fell on 135 days, and 1873, when 16·92 in. fell on 159 days.

STAINBOROUGH, WENTWORTH CASTLE.—R eleven inches below the average of 10 years, and less than half the fall of 1877(40·48 in.) Water supply short in many of the neighbouring villages. Harvest early. Crops generally good and well secured.

BARNSLEY, CHURCH STREET.—The smallest R since the record

commenced in 1865, the next in order being 18·45 in. in 1873 and 18·48 in. in 1874.

MELTHAM, HAREWOOD LODGE.—A most exceptionally small R, only 58 per cent. of the average of six years, the fall in every month being below the average. February and June were very dry, and the number of wet days the smallest recorded. The reservoirs were very low during the last six months, but on the whole not lower than in 1884. The year was cold, like 1885 and 1886, except in June and July. TSS were few in number and slight.

DONCASTER, HATFIELD.—A dry, cold, frosty spring; a dry summer with the exception of the last 18 days of August, when heavy rains fell, and a dry autumn with much frost.

HUDDERSFIELD, DALTON.—By far the driest year on record.

WAKEFIELD, ALVERTHORPE HALL.—Remarkable throughout for the long continuance of dry weather. R 11·66 in. below the average of eight years. Noteable also for the general absence of wind and of TSS.

RASTRICK.—Excepting 1873, when only 19·31 in. fell, the smallest R in 27 years. Although the drought was very severe, the want of water was not so seriously felt as in 1868, when the total R (33·39 in.) was brought up to the average by the heavy fall of 8·18 in. in December.

HALIFAX, THORPE.—R 19·12 in. below the average of 18 years. Number of rainy days 26 less than the average of 10 years. The driest year for at least 19 years, probably much longer. R below the average in every month except September. Very few TSS.

LEEDS, HORSFORTH.—Singularly dry and notable for very cold nights, frost on grass occurring on August 14th.

OTTERBURN-IN-CRAVEN.—R 16·83 in. below the average of 16 years. Some of the damp uplands of Craven will be greatly the better for the drought.

KNARESBOROUGH, FARNHAM.—R ·43 in. less than in 1874, the smallest previously recorded and 9·91 in. below the average of 16 years.

INGLETON, HALSTEADS.—R 10·92 in. below the average of nine years; in 1879 only 33·37 in. fell.

OUGHTERSHAW SCHOOL.—The driest year on record. June was a lovely month. Hay harvest a month earlier than usual. Severe cold in October. A fine year for grain. Springs very low.

SEDBERGH, BRIG FLATTS.—Very dry, with much more sunshine

than usual—of great benefit to the land, especially heavy soils. All cereal crops, as well as hay, were light.

SEDBERGH, WESLEY VILLA.—Very changeable, with exceedingly local showers and very small R.

HULL, DERRINGHAM.—The most prominent features of 1887 were the persistent cold of the first five months; the fine, though late summer, continuous from the first week in June to the first week in September, and the finest and most productive since 1868, especially as to the wheat crop; the early advent of autumn temperature in the second week of September; and the actual commencement of S falls and sharp frosts in the fourth week of October. R nearly six inches below average. The hours of bright sunshine were 1,177.

BEVERLEY.—Dry and cold until June 4th. June, July and August were dry and hot. The last four months (September to December) R, H, S, fog, sleet, frost—not a climate at all, but a random assortment of all kinds of weather.

MIDDLETON-ON-THE-WOLDS.—Only ·04 in. of R fell from June 4th to July 14th.

DRIFFIELD, BEVERLEY ROAD.—The smallest R recorded, though only 18·40 in. fell in 1884.

WETWANG.—In seven weeks, from May 27th, only a quarter of an inch of R fell.

THIXENDALE.—Remarkable for very little wind and R, the R being 17·20 in. below the average of seven years. March was a very calm month, bees at work on the 1st. May very dull. November remarkably still up to 26th. The springs were very low at the close.

HUNMANBY, FOXHOLES RECTORY.—Severe frost occurred in January and a long drought in summer, especially in June. R much below the average.

HUNMANBY, WOLD NEWTON.—The Gypsey was not running at the close.

MALTON.—The smallest R in 29 years' observations; 8·01 in. below the average.

MASHAM, BURTON HOUSE.—Remarkably dry, with almost tropical heat during June, July and August, but remarkable for the absence of TSS. No fall of an inch of R in 24 hours was recorded.

AYSGARTH VICARAGE.—R the smallest recorded here; 11·86 in. below the average of 12 years and two inches below that of the next driest year.

HAWES, HARDROW VICARAGE.—The smallest R recorded and

20·34 in. below the average of 12 years, the number of rainy days being 37 below the average.

HAWES, SHAW PADDOCK, LUNDS.—R the smallest registered, 16·33 in. below the average of 12 years.

RICHMOND, THE GROVE.—For the first year in observer's experience no fall of an inch of R in 24 hours was recorded.

INGLEBY MANOR.—The first seven months were very dry, the last five very wet. June and July were very warm; the rest of the year was cold. From May 28th to July 3rd only ·15 in. of R fell. There were no heavy falls.

EAST LAYTON [DARLINGTON].—Mainly remarkable for the long drought, which commenced in May and continued until the middle of August, no R falling during June. The hay crop was light, but wheat, barley and oats, although short in the straw, were a splendid crop. The turnip crop was almost unprecedentedly large. Both the hay and corn crops were harvested in sunshine and much earlier than usual. The fruit crop was also unusually abundant.

DIVISION X.—NORTHERN COUNTIES.

DARLINGTON, HURWORTH GRANGE.—From June 12th to July 2nd no R fell, and from June 4th to July 4th, 31 days, less than a quarter of an inch fell.

DARLINGTON, CLEVELAND PARADE.—Remarkably dry, with only two months in which the R was more than two inches, and three with R of less than one inch. No absolute scarcity of water, however, was experienced.

SEAHAM VICARAGE.—R 2·92 in. below the average of 20 years. Only 7·53 in. fell in the first six months. A dry, cool, late spring; a warm and moderately dry summer; and a wild, unsettled and cold autumn and winter.

CHESTER-LE-STREET, BIRTLEY.—R 5·02 in. below the average of 13 years, and number of wet days 16 below the average.

SUNDERLAND, WEST HENDON HOUSE.—R ·72 in. below the average of 20 years. Only once did the fall exceed ·75 in. February was the driest but two, April the driest, and June the driest but one since observations began in 1860. The R for the first half of the year was the smallest recorded. The greatest fall of snow during the year was in January, when an average depth of about five inches was reached on the 6th. This was the maximum depth

in the winter of 1886-7, in which, as a rule, there was very little snow, though it was remarkably icy—more so than any winter I remember. This was owing to the gentle frosts and thaws with rain and melted snow producing a covering of ice to an unusual extent, the roads being often very slippery, indeed some were so almost, if not quite, continuously for several weeks in December and January. In some cases there was even pretty good skating on lawns, the snow not being able, when thawed, to sink into the saturated or frozen ground, and becoming changed into ice. Fog was considerably below the average, especially in April and October.

HAYDON BRIDGE, RIDLEY.—Long continued dry weather marked the early summer; from May 21st to July 4th, a period of 44 days, only ·60 in. of R fell on 5 days.

NEWCASTLE, TOWN MOOR.—R 5·98 in. below the average of 20 years.

BINGFIELD HOUSE.—A long period of continued frost occurred from January 1st to 19th, followed by a dry, fine spring and a very fine summer. No R fell between June 7th and July 5th, and springs and wells were very low, some springs failing which were never known to do so before. The latter part of the autumn was wet. Very little S fell. Harvest early and crops good.

MORPETH, BOTHALHAUGH.—The peculiarities of the year were the unusual dryness of the first half, the continuance of E. winds in spring, and the amount of sunshine in summer, all producing such a dryness in the soil that springs failed which were never known to fail before, and the R in September scarcely made any impression.

PAWSTON [COLDSTREAM].—June and the early part of August were exceptionally dry, which was the more disastrous as this drought followed a very dry spring, and was accompanied by heat instead of, as in 1886, by cold.

BRAYSTONES.—R 16·98 in. below the average of 23 years.

WHITEHAVEN, IRISH STREET.—R 10·69 in. below the average of 11 years. No R fell from June 9th to July 9th, a period of 31 days

KESWICK, DERWENT ISLAND.—Severe drought prevailed in June. From May 22nd to July 8th (48 days) only ·62 in. of R fell on 10 days. The level of Lake Derwentwater fell on July 9th to a lower level than ever previously recorded, 8 inches below observer's low water mark. On August 29th the lake was again very low, $6\frac{1}{2}$ inches below low water mark. The low level of the lake was, however, partly due to the removal of a gravel bank in the river

KESWICK, SHU-LE-CROW.—The driest year since observations commenced; said to be the driest known. Lake Derwentwater was lower than in 1826, the lowest previous record. There were no exceptionally heavy falls of R, and few TSS. Tourists in the Lake District would do well to notice that during July R fell on 20 days, the largest number but one in the year, December alone exceeding it. July is usually a wet month.

WHITEHAVEN, GILGARRON HALL.—R 2·87 in. less than that of any of the preceding 11 years.

COCKERMOUTH, WHINFELL HALL.—The driest of 32 years. R 12·55 in. below the average of that period. There were 19 consecutive days without R in June and July.

BRIGHAM, BROUGHTON CROSS.—Remarkably dry, with only one month's R up to the average. Heavy falls were far fewer than usual.

COCKERMOUTH, BROUGHTON GRANGE.—R the smallest during a record of 15 years. A very fruitful year, little damage being done by drought.

BLENCOWE SCHOOL.—With the exception of 1879, when 30·49 in. fell, the driest year since observations began in 1871; R 9·56 in. below average. Great drought prevailed at times, especially in the summer months, and water became scarce, perhaps unprecedentedly so. T was only heard in the distance, and electrical disturbances were rare. Crops of all kinds suffered more or less, although, owing to the nature of the land here and its proximity to the western hills, want of R is not so severely felt as elsewhere.

CARLISLE, WREAY VICARAGE.—R 7·22 in., and number of rainy days 34, below the average of 10 years.

KENDAL, HAWESMEAD.—The R in Kendal has been observed since 1788. During that period there is no other year with so small a total as 1887. 1855 comes nearest with 34·54 in.

KENDAL, ELLERGREEN.—Remarkable for heat and drought, and also for the occurrence of frost in every month.

BOWNESS, FALLBARROW.—The R was 19·68 in. below the average of 18 years, and 10·61 in. less than that of 1878, the driest year previously. For six consecutive months, March to August, less than three inches fell in each month, and less than ·75 in. in June, when the heat was excessive. The number of wet days, too, was extremely small. Windermere Lake was lower than it had ever been known before, and perhaps it is unprecedented for this place that the supply

of water by the Waterworks was limited to eight hours a day. Mean temp. very slightly above the average.

LONGSLEDDALE.—An exceptionally dry season; all springs dried up in summer.

AMBLESIDE, NOOK COTTAGE.—The smallest R recorded; 28 inches below the average of 12 years.

AMBLESIDE, LESKETH HOWE.—R 29·12 in. below the average of 19 years.

ORTON VICARAGE.—Almost all the springs in the neighbourhood dried up.

KIRKBY STEPHEN.—The smallest R since observations began in 1865.

SHAP, COPY HILL.—Generally very dry. Crops were light, and water was scarce.

CROSBY RAVENSWORTH, REAGILL.—Supposed to have been the driest and hottest summer since 1826. The total R of May, June, July and August was only 5·64 in. The hay and corn crops were the lightest ever known. Temp. above 80° on 6 days.

APPLEBY.—No R fell from June 6th to July 3rd.

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.

MARSHFIELD, LLWYNARTHAN.—The driest year remembered, there being not only a drought in summer, but deficient R throughout.

LLANFRECHFA.—R 31·10 in., the smallest since records commenced in 1865. The lowest before was 38·38 in. in 1884.

TREDUNNOCK.—R about fourteen inches below the average.

TREDEGAR, BEDWELLTY HOUSE.—There was a greater scarcity of water during 1887 than almost any living person can remember. The large steel works were with difficulty kept going, a special pump being erected to pump the same water over and over again.

COWBRIDGE, THE HAM.—The driest summer since observations commenced. No R fell between June 2nd and July 5th. Most of the springs in the parish dried up.

OYSTERMOUTH, NEWTON.—No R fell from June 8th to July 9th, when there was a good shower. August was dry till 26th, and rainy weather with TSS prevailed till September 6th. The weather was then dry till October 26th, when it broke up and R set in. No fall of an inch of R in 24 hours occurred.

CASTELL LLWCHWR, PENLLERGARE.—About two-thirds of the usual R. Springs very low.

TEGFYNYDD [NARBERTH].—Remarkably dry; the smallest R since 1843 or 1844.

ST. DAVID'S.—Exceptionally dry. Though many local wells dried up, there was no absolute scarcity of water. The springs began to come home after the September and October rains, and there was rapidly an abundant supply of water.

FISHGUARD, CASTLE HILL.—The smallest R on record; great scarcity of water.

NANTHIR RESERVOIR [ABERDARE].—R 13·16 in. less than that of 1879, which was the smallest recorded previously.

BRECKNOCK, CANTREFF RECTORY.—R 18·52 in. below the average of 10 years.

NEW RADNOR, DOWNTON.—Compared with the two preceding years, 1887 was remarkably dry. There were two periods of absolute drought, viz., from April 6th to 20th, 15 days, and from June 9th to July 3rd, 25 days. There was but one day on which the rainfall exceeded one inch in the 24 hours. The stormy weather, which set in at the beginning of October, 1886, continued to January 19th, 1887, and was succeeded by three months of very dry weather, R having fallen on only 28 days from January 19th to April 20th; and cold, dry weather continued all through May, with rare exceptions, keeping back the vegetation. This was succeeded by a dry, hot period, and the hay crops were very short; but the harvest was gathered under very favourable conditions, and the moderate R during the autumn rendered 1887 a less unfavourable year for the farmers in these parts than at first it was feared would be the case.

ST. ASAPH, NANTLLYS.—Winter, both cold and dry, with no growth of vegetation, lasted till June 3rd, when an inch of R fell, followed by summer warmth. The crops shot forward with most unusually rapidity, and, in spite of subsequent drought, were fair.

PRESTATYN, NANT.—R 3·57 in. less than in any previous year since observations began in 1874.

RUABON, WYNNSTAY.—R about twelve inches below average. Springs in this immediate area were very little affected. The surface soil was very dry and at no time completely saturated.

CERRIG-Y-DRUIDON.—Very dry. Streams in the vales were quite low at the close.

ROSSET, TREVALYN HALL.—R much below the average, and the smallest during 20 years, the next driest years being 1873, with

22·20 in., and 1870, with 22·71 in. Only ·02 in. of R fell between June 3rd and July 4th. The winter was long and severe, the spring very cold, the summer very warm but short, and the autumn cold throughout.

NANNERCH, PENBEDW HALL.—The year differed from former ones not only in the decrease of the fall, but in the very considerable diminution in the number of wet days. R fell only on two days in June, which is phenomenal.

COLWYN BAY, BRYN EURYN.—The smallest R on record; no fall of an inch on one day.

LLANDERFEL, PALÉ.—R 37·37 in.; the smallest fall registered since observations commenced in 1875.

LLANERCHYMEDD, LLWYDIARTH ESGOB.—The driest year since observations commenced in 1861, with 3·94 in. of R less than in 1873, the next driest year, and considerably less than half the fall of the wettest year, 1872. No R fell between June 8th and July 14th. Springs only just filled up in December. Crops good, except early sown swedes. Hay light, and grass short.

DOUGLAS, VICTORIA ROAD.—Extremely dry. R 16·25 in., or more than 37 per cent., below the average of 13 years. No fall of an inch in 24 hours was recorded, no similar immunity having been experienced in 13 preceding years.

TRESCO ABBEY.—R 9·35 in. below the average of 10 years. In 7 months, from January 18th to August 15th, only 5·52 in. of R fell, but in three weeks, commencing August 16th, 5·30 in. fell.

ST. HELIER, HASTINGS TERRACE.—Chiefly remarkable for the sunny skies and long drought in June, July and August, and for the absence of TSS during all the hot weather. R much below the average.

GUERNSEY, LES RUETTES BRAYES.—R 8·60 in. below the average. February, March, June and July exceptionally dry, November very wet. The peculiarity of the year is to be found in the smallness of the amounts, the number of wet days having exceeded the average by 20.

SCOTLAND.

DIVISION XII.—SOUTHERN COUNTIES.

GARLIESTOWN, GALLOWAY HOUSE.—Remarkable for the very hot weather and great drought during the summer months.

DALBEATTIE, COLVEND MANSE.—The driest year observed here in 12 or 14 years. The summer, for drought, resembled, and all but equalled, that of 1826.

IRONGRAY, DRUM PARK.—With the exception of 1880, when only 40·10 in. of R fell, the driest year since the record commenced in 1871.

DURRISDEER, DRUMLANRIG CASTLE.—The spring and summer were remarkable for dryness and sunshine, the autumn was one of the finest experienced for a long time, and the closing months were marked by sudden changes from mild to frost.

NEW CASTLETON, THE FLATT.—The driest of 24 years, with 4·10 in. of R less than 1880, the next driest year.

HAWICK, KIRKTON.—R. 7·91 in. below the average of 24 years.

MELROSE, ABBEY GATE.—R 7·15 in. below the average of 16 years. Mean temp. (41°·6) about the average. A good year for agriculturists; harvest very early; potatoes a good crop and free from disease; turnips finer than for many years.

DIVISION XIII.—SOUTH EASTERN COUNTIES.

SELKIRK, THE HANGINGSHAW.—Drier than usual, with sudden changes and a gloriously hot summer.

INNERLEITHEN, RUNIC CROSS.—A fine, warm summer, with the temperature frequently rising to 80°. R below the average.

EDINBURGH, BLACKET PLACE.—With the exception of July, September and November, the R of each month was below two inches. The drought broke up completely during September, and November was singularly dull and sunless, with only two fine days.

DIVISION XIV.—SOUTH WESTERN COUNTIES.

BIGGAR, WISTON.—R below the average. The ground was very dry in April, May and June. A heavy fall of S in May moistened the soil and secured very good crops of potatoes, and of turnips where sown early. The rains in July lengthened the cereals and caused a good crop of fine quality. The hay crop also was good.

BIGGAR, CAMBUS WALLACE.—A beautiful summer, but bad harvest weather, and great difficulty was experienced in securing the crops.

BARRHILL, DOCHROYLE.—R the least in 12 years, and 18·86 in. below the average.

COLMONELL.—R the smallest recorded, being 10·65 in. below the average of 11 years, and 1·90 in. below that of 1880, the next driest year, the number of dry days being 42 above the average, and the greatest number recorded. Mean temp. 1°·2 above the average.

DIVISION XV.—WEST MIDLAND COUNTIES.

STIRLING, POLMAISE GARDENS.—The finest, warmest and driest year since 1870, which it resembled in almost every respect.

OBAN, CRAIGVARREN.—A very dry and fine year, and, on the whole, free from tempestuous weather. Temperature above, and R below, the average. Crops heavy, especially the hay, owing to the mild and dry autumn. The seasons throughout were early.

BALLACHULISH.—January to May cold and ungenial; the rest of the year fair. R below the average.

ISLAY, ARDBEG.—The driest season on record in the whole of the west of Scotland, and one of the hottest summers.

DIVISION XVI.—EAST MIDLAND COUNTIES.

TILLICOULTRY.—Exceptionally dry; the first six months abnormally so. Corn crops were very short; honey was abundant.

STRATHMIGLO, LODEN URQUHART.—The spring and summer were very dry, and many springs ceased running which are not remembered to have been dry before. The latter half of June was very hot. The end of August and the beginning of September were very dull, moist and quiet. There was an unusually slight S fall and no drift.

KILMANY, MOUNTQUHANIE HOUSE.—The smallest R in half a century. Straw and hay very short; potatoes and turnips excellent.

CALLANDER, LENY.—With the exception of 1870 and 1880, the driest year since observations commenced in 1852. The singularity of the year did not consist alone in its dryness, but in its early and prolonged summer. Heather was pulled on the hills in full bloom on July 17th, about six weeks earlier than usual.

BALQUHIDDER, STRONVAR.—R below the average. Crops of all kinds very good, and usually well got in. A good feeding year for sheep on the hills.

COUPAR ANGUS.—R exceedingly small; only in August and September was there anything like an average fall. Several long

periods of absolute drought occurred, particularly at the end of February and beginning of March, in the first half of April, and in the last half of December. The R of May and June was very slight, and but for dew at nights the length of time without R would have much exceeded the periods above referred to. On only one day (September 4th) did the fall exceed an inch.

ARBROATH.—R 6·35 in. below the average of 45 years, every month being below the average, except January, which was ·09 in., and September, which was ·44 in. above it.

DIVISION XVII.—NORTH EASTERN COUNTIES.

THE BURN [BRECHIN].—The driest year since 1842; R 6·30 in. below that of the next driest year, 1870.

BRAEMAR.—The smallest R on record.

ABOYNE CASTLE.—Many of the springs dried up, and had not re-commenced running at the close. Crops, such as oats, barley and hay were very poor, hardly worth harvesting. Potatoes were a splendid crop, and of good quality.

CROMAR, TILLYPRONIE.—A dry, warm year; very fine during February and at the beginning of March.

ABERDEEN, ROSE STREET.—The smallest R since 1870, when 24·00 in. fell.

MIDMAR, BLACKSTOCK.—The driest year, except 1884, since observations commenced in 1866.

ELLON, KERMUCK.—On the whole, a favourable year. The summer was early, with bright sunshine and a rather small R. Harvest and yield of crops above the average. December excessively changeable.

OLD DEER.—The first six months were very dry, May and June particularly so, and the latter was bright and warm. No R fell from June 14th to July 4th. Crops were good generally, except on early, thin soils, the out-turn of grain being considerably above the average.

CULLEN HOUSE.—The first half of the year was very dry, with bright sunshine; the second half was quite the reverse, dull and foggy, with much R. There was a good average crop of fruit, of superior quality, which came to maturity fairly well.

CRAIGELLACHIE, WESTER ELCHIES SCHOOL.—Drought prevailed from May 22nd to July 4th. No TS occurred in this district.

GORDON CASTLE.—December was very changeable, without extremes; otherwise the season was remarkably favourable for crops of all kinds, with more than the average amount of sunshine. R about six inches below the average.

DIVISION XVIII.—NORTH WESTERN COUNTIES.

ALNESS, ARDROSS CASTLE.—June and July were very dry and hot; the autumn was cold and wet.

BEN NEVIS.—There were 36 days during the year on which more than an inch of R fell.

MOIDART, ROSHVEN.—The best summer in this district for many years.

DIVISION XIX.—NORTHERN COUNTIES.

GOLSPIE, DUNROBIN CASTLE.—The early part of the summer was rather dry. Hay and straw were deficient, though grain was good. Fruit and vegetables were very good where the soil was favourable. The early part of the harvest was rather wet, but the crops latterly were secured in good condition.

ASSYNT, ACHUMORE.—The wettest year since 1880.

SCOURIE.—Spring was very seasonable, though cold. The early summer was hot, with very little R, but after July came in there were scarcely two days without R till the end of summer. Autumn continued wet all through, with few exceptions, though the weather was changeable. Winter was very variable, S, R and frost succeeding each other at short intervals.

WATTEN H.R.S.—A frosty winter; a fine, dry spring; a dry summer, with an average amount of sunshine and warmth; and an excellent autumn. Crops were very good and well secured.

IRELAND.

DIVISION XX.—MUNSTER.

DUNMANWAY, COOLKELURE.—The driest year in the recollection of the oldest inhabitant.

CARRIGALINE, RAVENSWOOD.—Remarkable for the small R, the abnormal summer heat and the periods of absolute drought, viz.,

26 days from June 8th to July 3rd, and 14 days from April 6th to 19th. The abnormally high temperature of the sea round the S. of Ireland seems to have occasioned such an extraordinary quantity of fish-food as to have induced the turbot, among other fish, to return to their former feeding ground on a bank known as "The Turbot Bank" at the mouth of Cork Harbour, from which they had disappeared for more than twenty years.

CORK, BLACKROCK.—Remarkably dry, the R being 18·71 in. below the average of 22 years, and 3·79 in. less than that of 1867, the driest of those years. A drought of 26 days occurred from June 8th to July 3rd. The fall each month was below the average.

CORK, CLARENCE PLACE.—Most remarkable for drought, for which it was probably unprecedented, every month being dry. The longest period without R was 26 days ending July 3rd, besides which there were two periods of 14 rainless days ending April 19th and October 25th respectively. There were few storms and hardly any T and L. Winter was protracted, continuing to the end of April, and the summer was unusually warm.

KILLARNEY, WOODLAWN.—Remarkable for the small R from February onwards.

WATERFORD, NEWTOWN.—A most extraordinary year for drought; unparalleled in recent times.

PORTLAW, MAYFIELD.—The past year here is considered the driest in the present century, the R being 19·36 in. below the average of seven years. January had rather more than the average fall, but each subsequent month was considerably below it. February was fine and dry with a fair amount of frost, chiefly from 8th to 16th. March was fine, dry and cold; from 12th to 21st very frosty; most of the R fell on the night of 21st. April was dry, fine and sunny, with the exception of the latter part; May fine and dry, and June exceedingly dry and parching, with not a drop of R from the 7th to the 4th of July, and from June 13th to 27th scarcely a cloud. The temp. rose above 80°nine times between June 16th and the end of the month, as against ten times for the whole of the previous seven years. The rest of the summer was not so hot, but fine, warm and dry. The long drought of several months was brought to a close by the R which commenced at 7 a.m. on August 26th. At this date several kinds of forest trees were showing signs of distress (the leaves of the lime being quite yellow), some to an extent hitherto unknown in this mild and generally damp climate. The break in the weather,

which commenced on August 26th, was of a partial nature only, the showers, however, doing great good to surface crops, &c. Fine, dry weather recommenced on September 11th and lasted till October 26th. At this date most of the springs and wells were dry, and such as were not entirely so were lower than ever known before. The rest of the year was generally mild, with R below the average. The year was exceptionally free from violent storms of wind.

GLENAM [CLONMEL].—R much the smallest during 23 years' record.

DERRYCASTLE [KILLALOE].—A notably dry year, with the smallest R and fewest rainy days within living memory. R 12·18 in. below the average of eight years. It was exceptionally dry from February to June; harsh in spring and hot in summer. Although the R was considerable in the remaining months, it was below the average in each. There were three days on which upwards of an inch of R fell. Pastures were poor and parched, and hay crops extremely light; potatoes excellent, except on shallow or sandy soils.

NENAGH, THE LODGE.—The driest year on record.

NENAGH, CLASHNEVIN.—R much below the average, particularly in May and June, when so greatly needed to develope and improve the growing crops, which, owing to this and the dry winds and hot sun, were in this district very stunted and poor—the turnip crop in many instances being almost a total failure. What there was of corn and hay was well and early saved. In some districts water for stock was very scarce all the summer, springs being dry that no one living ever knew to be so before; many only began to rise again at the end of December, and some watercourses, usually running all the autumn, were quite dry at the close.

NENAGH, CASTLE LOUGH.—The driest year on record, and supposed to have been the driest since 1826. In each month, with the exception of January, the R was below the average of 11 years, and the total was more than thirteen inches below that average. In 1884 the R of the six months, April to September, was rather less than in the same six months of 1887; but in 1884, the three preceding and the three following months were very wet.

LIMERICK, KILCORNAN.—The oldest person does not remember so dry a year. It was most injurious to all crops, pastures and turnips being a total failure.

O'BRIENSBRIDGE, ROSS.—1887 exhibits the smallest R in a record kept since 1846 in this district.

SIXMILEBRIDGE, KILKISHEN.—Remarkable for 24 days' drought, from June 8th to July 3rd. Mean temp. 48°·7.

BROADFORD, HURDLESTOWN.—A very dry year. There were two periods of absolute drought; one in April and one in June and July. During the summer water was in many places very scarce.

MILTOWN MALBAY.—Remarkable for the greatest drought and heat since 1822. It commenced with February, and the parching, dry, frosty winds and brilliant sun of March thoroughly dried up the surface; April and May continuing cold, frosty and dry, began to tell on the water supply. Torrid heat set in on June 16th. All herbage got burned up, and streams, rivulets and springs ran dry. Even the waterworks reservoir got exhausted, though made to hold six months' supply. The weather broke with T and copious R in the last week of August. September was a fair harvest month; October and November were very dry. The first three weeks of December were rainy, cold and stormy; the Christmas week was mild and dry. R below the average.

DIVISION XXI.—LEINSTER.

NEW ROSS, LONGRAIGUE.—R 17·68 in., or more than 41 per cent., below the average of 18 years.

ENNISCORTHY, BALLYHYLAND.—The driest year recorded; R 17·28 in. below the average of 20 years. From June 8th to July 7th only ·02 in. of R fell. Hay was very scarce, and crops were irregular. Springs stopped and wells dried, and were only beginning to show signs of recovery at the close.

GOREY, COURTOWN HOUSE.—Observations on the R in Ireland from April 1st to June 30th, 1887, show Courtown to be in that part of Ireland where the least R fell in that period, the fall being 28 per cent. of the average of the 5 previous years, and the smallest amount since 1869, when observations were first regularly recorded at this station.

GRAIGUE, BRANDONDALE.—There was a great scarcity of spring water from June to December, but strange to say, the spring that supplies observer's house did not stop until the end of September.

LAVISTOWN.—The excessive drought in early summer was very exceptional. The extreme dryness of the year tended to counteract the injury done to wet lands by the excessive R of former years.

DUBLIN, PHŒNIX PARK.—R 11·49 in. below the average of 10 years.

GLASNEVIN BOTANIC GARDENS.—The driest year recorded. The period from January to August was especially marked by the absence of moisture, not only in the form of R, but also of dew. Ponds and rivers became almost empty, and the effect on vegetation was disastrous. Observer has never before known the soil so dry, or dry to such a depth.

BALBRIGGAN, LARAGH.—R 11·38 in. below the average of 19 years. Crops, however, were much better than was expected, the potato crop being especially good. Great scarcity of water was felt in country districts, several springs and streams being dry; but in the town of Balbriggan no wells were dry.

ATHLONE, TWYFORD.—Unusually dry; the deep springs were scarcely supplied at the close.

LOUTH, STEPHENSTOWN.—A very unusually small R. Indifferent crops on light land; fair crops on good land.

RAVENSDALE SCHOOLS.—The driest year remembered. R nearly 22 inches below the average of 10 years.

EDGWORTHSTOWN, CURRYGRANE HOUSE.—This year far exceeded all others in dryness since observations commenced in 1879, the R being 3·29 in. less than that of 1885, the next driest. In most cases water had to be carted long distances, and even at the close the usual supply was not forthcoming. On the whole, a good year for crops. Potatoes were splendid; oats short, but good heads.

DIVISION XXII.—CONNAUGHT.

BALLINASLOE.—R 12·25 in. below the average of 14 years, the fall in each month having been below the average.

WOODLAWN GARDENS.—Very dry, but suited this locality, which is naturally wet and boggy. Crops good and fruit plentiful.

CLIFDEN, KYLEMORE.—Fine on the whole, and good for out-door work.

BALLINROBE, KILRUSH.—Four months were unusually dry for the West of Ireland, the drought in June being very severe.

WESTPORT, OLDHEAD HOUSE.—The greatest drought remembered. Springs dried that were never known dry before.

BALLINAMORE, LAWDERDALE.—A remarkably dry year. Numbers of springs dried up. June was said to be the driest month for forty years.

DIVISION XXIII.—ULSTER.

EDWARD STREET STATION [NEWRY].—Exceptionally dry. The lake (Cam Lough) 160 acres in area, with a catchment basin of 3,568 acres, from which the water supply of Newry town, canal and mills is taken, sank to the lowest level since 1872, when the works in connection with the water supply were carried out.

CASTLEWELLAN, LOUGH ISLAND.—The smallest R recorded in 26 years; 2·40 in. less than the next smallest, in 1869, and 17·10 in. below the average of 20 years.

BANBRIDGE, MILLTOWN.—The smallest R since observations commenced at the end of 1861, being eih gt inches below the average of 20 years, and 2·10 in. below the fall of 1864, the next driest year.

HOLYWOOD WATERWORKS.—Said to have been the driest year in living memory.

BALLYMENA, HARRYVILLE.—A very dry season throughout, the R being 12·39 in. below the average of 10 years.

BELLARENA.—The harvest was good, the dry year suiting this locality with a damp sub-soil.

MOY, DERRYGALLY.—Very free from storms.

STEWARTSTOWN, THE SQUARE.—R about one-third below the average.

DUNGANNON, ROCKDALE.—R 15·98 in. below the average of 12 years.

STEWARTSTOWN, ARDTREA.—The driest year recorded.

RAPHOE, CONVOY HOUSE.—A fine year generally. The summer was warm and the R very moderate. A good season for all descriptions of crops. Garden produce was very unequal.

BUNCRANA, ROCKFORT.—Crops were quite up to the average, or rather above it, especially potatoes, which were abundant, the hot dry season seeming to suit them.

HEAVY RAINS IN SHORT PERIODS IN 1887.

THE following is the third consecutive extremely short list of torrential rains—in fact, scarcely any of them are of any importance.

Heavy Falls in Short Periods, 1887.

Date.	Div.	Station.	Amount.	Duration.	Rate per hour.
			in.	hr. min.	in.
July 14 ...	IV.	Beccles, Geldeston	·42	... 9	2·80
Aug. 17 ...	I.	London, Camden Square	·50	... 10	3·00
Sept. 4 ...	XIII.	Edinburgh, Blacket Place	·33	... 10	1·98
Aug. 29 ...	XVI.	Strathmiglo, Loden Urquhart..	·29	... 10	1·74
June 18 ...	XVIII.	Drumnadrochit.....	·77	... 15	3·08
Aug. 17 ..	I.	London, Camden Square	·66	... 22	1·80
July 15 ...	V.	Wiveliscombe, Willett House..	1·09	... 30	2·18
Aug. 17 ...	I.	London, Camden Square	·79	... 30	1·58
,, 16 ...	XX.	Kilkishen	·72	... 30	1·44
Sept. 4 ...	XXIII.	Cushendun	·52	... 30	1·04
July 15 ...	III.	Northampton, Sedgebrook.....	·76	... 43	1·06
,, 31 ...	VII.	Horncastle, Bucknall	·71	... 45	·95
,, 14 ...	V.	Frome, Rock House, Mells ...	1·35	1 0	1·35
Aug. 17 ...	I.	London, Camden Square	1·24	1 0	1·24
July 31 ..	VII.	Alford, The Burial Ground ...	1·18	1 0	1·18
,, 11 ...	XXIII.	Cushendun	·85	1 0	·85
,, 17 ...	II.	Canterbury, Harbledown	1·11	1 5	1·02
Aug. 17 ...	VI.	Tewkesbury, Beckford	1·28	1 15	1·02
July 16 ...	II.	Wallington	1·28	1 30	·85
Aug. 31 ...	XIV.	Glasgow Observatory	1·77	2 0	·89
Aug. 17 ...	II.	Wimbledon, Raynes Park	1·32	2 0?	·66
July 15 ..	VI.	Wyastone Leys [Monmouth] ...	1·09	2 0?	·55
Aug. 17 ...	XII.	Kelso, Springwood Park	2·73	3 0?	·91
June 18 ...	XII.	,, ,, ,, ...	1·33	3 0	·44
Aug. 17 ...	I.	London, LansdowneCrescentW.	1·61	3 15	·50

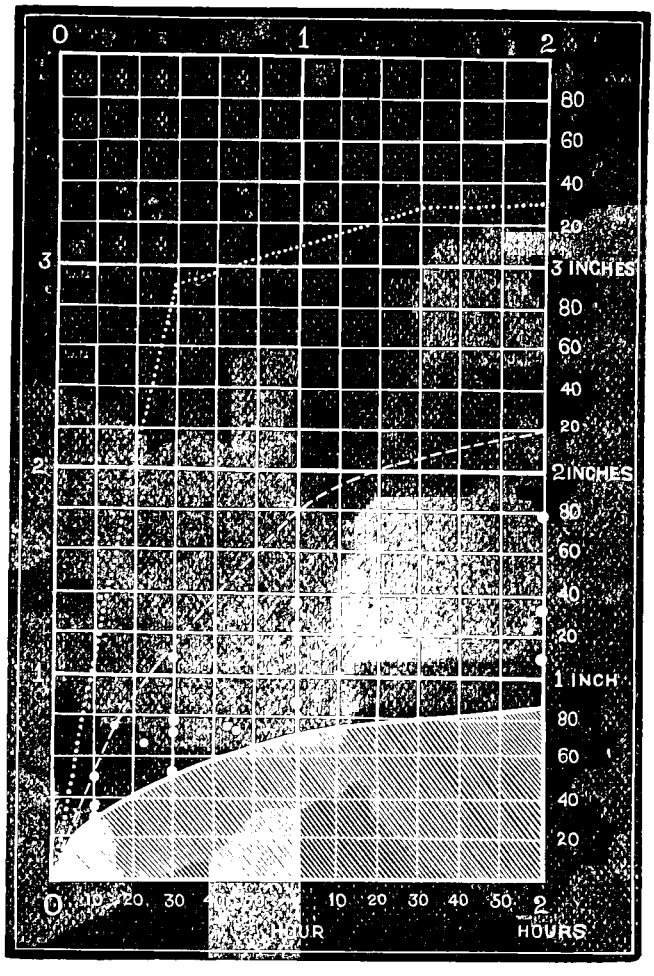
One of the heaviest is the fall of half-an-inch in ten minutes, at Camden Square, during the thunderstorm of August 17th, but this is not half what fell in a similar period on June 23rd, 1878, and is only just up to what we at present believe must be regarded as an exceptional rain.

Of course there must be a limit below which amounts occur so

frequently that they cannot be considered worthy of notice. Whether rightly or wrongly the future alone can tell, but we believe rightly, we fixed these limits in 1874, at

0·20 in 5 minutes.	0·60 in 45 minutes.
0·35 in 15 ,,	0·70 in 1 hour.
0·50 in 30 ,,	0·83 in 2 hours.

We believed, and believe, that falls of less than those values are not worth noticing, and they are, therefore, excluded from the preceding table. The shaded portion of the following diagram



represents the falls which are thus excluded on the ground of their being too common to require notice. A faint pecked curve will be seen passing through the middle of the diagram; this represents the largest amounts which are probable within the respective times. For example, in an hour a fall of 0·60 in. is not sufficiently rare to be worth notice, and an ordinary maximum fall in an hour should

be, according to the diagram, between 0·70 in. and 1·80 in. Much larger amounts are occasionally recorded, for instance in 1886, at Stanley Vicarage, Wakefield, 2·50 in. fell in one hour on July 25th.

The dotted curve in the upper part of the diagram represents (as far as we can recollect) all the most violent torrential falls recorded in the British Isles within recent years.

This curve is worthy of careful study; it shows that

One inch has fallen in less than ten minutes.

Two inches have fallen in twenty minutes.

Three inches have fallen in less than an hour.

At the same time it must not be forgotten that these are the very extremes, picked out of at least 30,000 yearly records, *i.e.*, 1,500 a year for 20 years, from all parts of the British Isles, and there is no evidence to show that they are much more probable than the bursting of a waterspout, which doubtless would give much more, provided that the rain gauge over which it burst were capable of holding it, or that the observer rushed out and attended to it, instead of leaving it till the next day, as the Scarborough observer did in 1857, and then found his gauge which held 9½ in. had filled and run over, but in that case the fall went on for hours.

Roughly, the three curves may be regarded—the first as including falls unworthy of notice; between it and the pecked line, falls which may be expected to occur somewhere or other every year, and lastly between the pecked and dotted lines exceptionally heavy torrential rains.

The dots show recorded falls in 1887.

The insignificant character of these phenomena in 1887, may be summed up in one sentence by pointing out that not a single fall is marked above the pecked line, and only one reaches it.

I do not think that it is wise to pass without note a fact which although more prominent than usual, has had many precedents. I refer to the indication of periodicity in the dates of these storm rains. Treating, as it is only fair to do, all the entries on a single day as one, it will be found that in each month they are markedly divisible into two groups, each of about a week; one group reaches from 11th to 18th and contains 7 dates, and the other from 29th to 4th and contains the other 4 dates. No cases occur between 19th and 28th or between 5th and 10th. I claim no originality in calling attention to this, it is one of the leading subjects in Webster's *Recurring Atmospheric Periods.*

HEAVY FALLS IN 24 HOURS DURING 1887.

THE following pages deal with the wet days of the year, which are, of course, a different class of phenomena to the torrential rains lasting but an hour or so, though in many cases the latter yield such large quantities as to claim insertion here as the M fall of the year.

The values quoted are believed, in every case, to refer to the rainfall day, *i.e.*, to the 24 hours ending 9 a.m. of the following civil day, M being used for the sake of brevity to express "maximum amount in any rainfall day during the year."

PART I.—CHRONICLE.

For several years it has been the practice in making this running commentary on the heavy falls in 24 hours to set out in full all stations at which the fall in any day reached 2·00 in., or was equal to 6·0 per cent. of the total fall. To have done so this year would have burdened the work with page after page of records of quite insignificant rains, for, owing to the dryness of the year, several falls of little more than three-quarters of an inch are six per cent. of the total. The limit of percentage has therefore been raised to 7·0 per cent., but in spite of the alteration, the number of records which claims notice as reaching this limit is more than twice as great as the number which appears with falls above 2·00 inches. In fact, the yearly totals are so small that even though the limit has been raised from 6 per cent. to 7 per cent., some of the entries are quite unimportant.

By referring to previous volumes we obtain the following, which forcibly exhibits the insignificant character of the M falls of 1887 :—

Year.	Total number of records.	Number of falls of 2·00in. or more.	Number of falls of 3·00in. or more.
1882	1463	140	8
1883	1505	170	23
1884	1691	138	9
1885	1801	179	24
1886	1718	158	44
1887	1921	52	4

The number of falls exceeding 2·00 in. in 1887 is little more than

a third of the smallest number for any of the five previous years, and on looking back to 1883* we find one day, September 29th, with falls as great as, and considering the district in which they occurred more remarkable than, those of the whole country for the entire year 1887.

	Falls of 2·00in. and upwards.	Falls of 3·00in. and upwards.
Year 1887	52	4
Sept. 29th, 1883	41	5

JANUARY 3RD—7TH.

The heavy falls of S, in several instances accompanied by rain, of the early part of January produced the M at 80 stations on the 3rd, 9 on the 5th, and 27 on the 7th, nearly all in Divisions II., III., V., VI. and VII. The more important falls being :—

JANUARY 3RD.

II.	Newbury, Welford Park	1·70 in.	or 7·0 per cent.
,,	Maidenhead, Lowood	1·54 ,,	7·6 ,,
,,	Wantage, Letcombe Regis	1·83 ,,	8·0 ,,
,,	Wallingford Castle	1·86 ,,	10·0 ,,
III.	Oxford, Toot Baldon Vicarage	1·34 ,,	7·5 ,,
,,	Stanton St. John's, Woodperry	1·53 ,,	7·7 ,,
V.	Donhead St. Mary, Charlton Ho.	1·96 ,,	7·4 ,,
,,	Broad Chalke	2·07 ,,	9·0 ,,
,,	Salisbury, Britford	1·69 ,,	7·7 ,,
,,	,,	1·69 ,,	7·8 ,,
,,	Winterslow	1·40 ,,	7·2 ,,
,,	Ludgershall	1·65 ,,	7·0 ,,
,,	Blandford, Tarrant Keynston	1·91 ,,	7·9 ,,

JANUARY 5TH.

III.	Greenlands [Henley-on-Thames]	1·67 in.	or 8·1 per cent.
,,	Thorney, Wryde House	1·15 ,,	8·1 ,,
VIII.	Eccles, Worsley Hall	1·47 ,,	7·5 ,,

JANUARY 7TH.

VI.	Atherstone	2·10 in.	or 9·8 per cent.

JANUARY 10TH.

The M at 26 stations distributed over Cumberland, Westmoreland, the south and centre of Scotland and over Ireland.

XI.	Isle of Man, Andreas	1·72 in.	or 7·3 per cent.
XII.	Dalbeattie, Station Road	2·15 ,,	5·4 ,,

JANUARY 11TH.

A fall yielding the M at 17 widely distributed stations in the N. of England, in Wales, Scotland and Ireland.

X.	Patterdale Hall	2·31 in.	or 3·9 per cent.
XI.	Llangerniew, Hafodunos	2·42 ,,	6·1 ,,
XXIII.	Rathfryland, Ballynagappoge	1·60 ,,	7·4 ,,

* *British Rainfall*, 1883, p. 108.

JANUARY 19TH.

A gale, accompanied by a rise of temperature, produced R over the greater part of the British Isles, and the M at five stations.

IV.	Bury St. Edmunds, Hengrave	1·37 in.	or 7·9 per cent.
X.	Longsleddale	3·00 ,,	6·0 ,,

This rain, in conjunction with the melting of the snow on the ground, caused floods in several parts of the Kingdom.

JANUARY 25TH.

A day of considerable rainfall in the S.W. of Ireland and the M at

XX.	Kenmare, Derreen	2·33 in.	or 4·9 per cent.

FEBRUARY 2ND.

Four stations recorded the M on this day, one in Wales and three in the W. of Scotland. Both districts being wet, the falls were considerable, but the percentages small.

XI.	Pen-y-gwryd	2·00 in.	or 3·2 per cent.
XV.	Ballachulish	2·10 ,,	3·2 ,,

FEBRUARY 22ND.

A heavy R in the N.W. of England and W. of Scotland, the M at 13 stations in the Lake district.

X.	Seathwaite	3·20 in.	or 3·2 per cent.

FEBRUARY 23RD.

Heavy rains were general over the W. of Scotland from February 22nd to 24th, and yielded the M at three or four stations. The following on 23rd is the only case that calls for mention.

XV.	Loch Eil, Conaglen	2·72 in.	or 3·6 per cent.

MARCH 15TH.

An exceptionally heavy snow storm for March produced the M at 11 stations in Wilts, Somerset, Gloucester, Monmouth and S. Wales. Depths of 12 inches were reported from Bristol and several places in Wales, Somerset and Dorset, and falls of 6 inches occurred in many parts of the country.

V.	Axbridge, Winscombe	1·90 in.	or 7·2 per cent.

MAY 19TH.

A depression of considerable depth passed across the British Isles in an Easterly direction during the day and night, and R was general, with soft H, S and TSS at several stations. This produced the M at 125 stations, a number exceeded on only one day and equalled on

one, but the quantities were so small as to reach the limit at only one station.

XIII. Pentland Hills, Glencorse Reservoir 2·00 in. or 5·7 per cent.

This station was nearly in the path of the centre of the cyclone, and roughly speaking, the falls diminish in quantity N. and S. of it, being greatest in Divisions VIII., IX., X. and XIII.

JUNE 2ND.

On June 2nd and 3rd a rather shallow depression was travelling slowly in a N.E. direction from the Bay of Biscay, and by 8 a.m. on the 4th had nearly died out, before reaching Denmark. The centre barely touched England, but the western half gave steady rain over the greater part of England and Ireland. In some cases the fall was almost equally divided between the two days, but in the majority was greatest on the 2nd, the M being recorded at 125 stations on that day, and at only 25 on the 3rd.

II.	Havant, Farlington	1·41 in.	or 7·3 per cent.
,,	Farringdon, The Elms	1·70 ,,	8·1 ,,
III.	Filkins [Lechlade]	1·40 ,,	7·4 ,,
V.	Amesbury	1·57 ,,	8·2 ,,
,,	Shalbourne	1·91 ,,	7·7 ,,
,,	Buttermere	2·21 ,,	8·6 ,,
VI.	Handsworth	1·44 ,,	7·0 ,,
,,	Evesham, Lansdowne	1·30 ,,	7·3 ,,

On June 3rd no fall reached the limit of 2·00 in., or of 7 per cent.

JUNE 18TH.

Thunderstorms occurred in the S. and E. of Scotland, with local heavy rains, giving the M at 3 stations.

XVI. Kirriemuir, Lednethaie 2·24 in. or 7·5 per cent.

JULY 9TH.

Thunder, or thunderstorms and heavy rain, were reported from several stations in Scotland and Ireland, and the M was recorded at 14 stations distributed over the N. of England, Scotland and Ireland.

XXI.	Moynalty, Westland	1·92 in.	or 7·1 per cent.
,,	Louth, Stephenstown	1·48 ,,	7·0 ,,

JULY 16TH.

Another day of unimportant thunderstorms. The M at 25 stations, mostly in, or on the borders of, Cheshire, but a few in the S.E. and E. of England.

IV.	Ingatestone	1·80 in.	or 8·9 per cent.
VIII.	Garston, Grassendale Park	1·70 ,,	7·1 ,,
IX.	Rotherham, Ulley Reservoir	1·10 ,,	7·1 ,,

JULY 26TH.

A depression passing north-westward off the coasts of Scotland and Ireland caused strong winds and heavy rains over a great part of the United Kingdom, and the M at about 20 stations, mostly in Wales.

XI.	Treherbert	2·20 in.	or 3·5 per cent.

JULY 31ST.

A day with thunderstorms reported from all parts of the British Isles. The M at 16 stations, in or near to, Norfolk and Lincolnshire.

III.	Upwell, Euximoor House.....	1·19 in.	or 7·3 per cent.
VII.	Spilsby.....	1·58 ,,	7·1 ,,

AUGUST 16TH AND 17TH.*

Thunderstorms were reported from nearly all parts of the British Isles on one or both of these days, they were the most severe storms of the year, many cases of injury occurring, though the rainfall was nowhere exceptional. The M occurred at 19 stations on the 16th, mostly in Surrey and Division VI. ; no fall was, however, sufficiently important for notice.

The 17th (the day of the severe thunderstorm in London, where 14 cases of injury to person or property occurred, and some damage was caused by flooding) produced the M at 39 stations, mostly near London, or in Surrey and Kent.

I.	Teddington, Gomer House	1·43 in.	or 7·1 per cent.
,,	Isleworth, Spring Grove	1·40 ,,	7·3 ,,
,,	Gunnersbury Station	1·65 ,,	9·0 ,,
,,	Ealing Local Board Office	1·75 ,,	9·2 ,,
,,	Kensington, Campden Hill, W.....	1·50 ,,	7·5 ,,
,,	London, Lansdowne Crescent, W....	1·66 ,,	8·3 ,,
,,	,, Camden Square, N.W. ...	1·44 ,,	7·5 ,,
II.	Wimbledon.....	2·08 ,,	9·7 ,,
XII.	Kelso, Springwood Park	2·73 ,,	10·4 ,,

AUGUST 18TH.

Thunderstorms again produced heavy rains in some districts, and the M at 15 stations, all but one in Lincolnshire or Yorkshire.

IV.	Holt, Letheringsett Hall.....	1·83 in.	or 8·7 per cent.
VII.	Horncastle, Bucknall	1·58 ,,	8·8 ,,

AUGUST 30TH.

Gales or strong winds with heavy rain prevailed on the S. and W. coasts, and the M occurred at 105 stations, spread over the whole of England south of York, and over S. Wales.

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* See *Meteorological Magazine*, October, 1887, p. 132.

I.	Pinner Hill	1·48 in.	or 7·3	per cent.
II.	Ryde, Town Hall	1·58 ,,	7·3	,,
,,	Osborne, Newbarn Cottage	1·88 ,,	8·4	,,
,,	Emsworth, Redlands	1·60 ,,	7·0	,,
III.	Slough, Langley	1·36 ,,	7·3	,,
VI.	Wolverhampton, Wrottesley	1·77 ,,	7·7	,,
,,	Penkridge, Rodbaston	1·70 ,,	7·2	,,
IX.	Doncaster, Hatfield	1·37 ,,	8·7	,,
,,	Goole	1·08 ,,	7·1	,,
XI.	Builth, Abergwessin Vic.	2·03 ,,	4·2	,,

SEPTEMBER 1ST.

A deep depression coming in from the Atlantic brought strong gales and heavy rain to our W. and S.W. coasts. The M at 90 stations in the western half of England, in Wales, Scotland and Ireland. Falls of two inches or more occurred at 6 stations, and Galway recorded the greatest fall of the year, considerable damage being caused by floods in the W. of Ireland.

V.	Buckfastleigh, Bossel Park	2·05 in.	or 5·3	per cent.
,,	Launceston, Altarnun	2·27 ,,	5·5	,,
XX.	Limerick, Kilcornan	1·58 ,,	7·1	,,
,,	Miltown Malbay	2·05 ,,	5·4	,,
XXII.	Galway, Queen's College	4·93 ,,	13·0	,,
XXIII.	Castlewellan, Lough Island	2·00 ,,	7·6	,,
,,	Carrickfergus, Lough Mourne	2·20 ,,	7·3	,,

SEPTEMBER 4TH.

The M at a dozen stations; important only in the Eastern counties of Scotland.

XVI.	Dunkeld H.R.S.	2·00 in.	or 7·9	per cent.

SEPTEMBER 6TH.

The weather reports show that on this day the distribution of pressure was complex; very slight whirlwinds were reported from Hampstead (London), Ash (near Canterbury), and one of moderate force from Burnage (Manchester). The M occurred at 57 stations in Cheshire, Lancashire, Yorks, Durham and Northumberland; the falls were mostly unimportant, averaging about an inch.

VIII.	Warrington, Arpley	1·46 in.	or 7·1	per cent.
X.	South Shields, Boro' Hospital	1·94 ,,	7·9	,,

SEPTEMBER 8TH, 9TH AND 10TH.

Insignificant rains, but giving the M at 64 stations, mostly in or near Yorkshire, on the 8th and 9th, and at 8 stations in the E. of England on the 10th.

IV.	Stoke Ferry, Wereham	1·25 in.	or 7·1	per cent.

OCTOBER 26TH.

A large depression on our N.W. coasts gave heavy R, and the M at 24 stations, a few on the coasts of Cumberland and Lancashire, the remainder in the S. and centre of Ireland.

XX.	Dunmanway, Coolkelure	2·12 in.	or 4·4	per cent.
,,	Valencia Observatory	2·49 ,,	5·7	,,
XXI.	Dalkey, Bellevue Park	1·12 ,,	7·3	,,
,,	Greenore	1·61 ,,	7·0	,,

OCTOBER 27TH.

A few stations in Lancashire and Cumberland, and several in Wales, had the M on this day.

X.	Arlecdon, Kirklandhow	2·23 in.	or 5·4	per cent.

OCTOBER 29TH.

This was unquestionably the rain of the year. It gave the M at 410 stations, and yielded 19 falls of two inches or upwards; more than a third of the total number (52) of such falls in the whole year. During the day the barometer fell rapidly, and by 6 p.m. the centre of a deep depression was over the Scilly Isles; this moved rapidly in an E.N.E. direction, clearing the coast of Norfolk about 9 a.m. on 30th. Rain was general over the British Isles, but the region of M followed very closely the track of the centre, for not one was recorded N. of a line running from Pembroke to the mouth of the Humber; Sussex and the S.E. of Kent escaped, while the stations cluster thickly along the track from the Scilly Isles to Norfolk.

III.	Towcester, Easton Neston	1·51 in.	or 7·9	per cent.
,,	Peterborough, Springfield Ho.	1·05 ,,	7·1	,,
,,	Stanground Sluice	·98 ,,	7·6	,,
V.	Ashburton, Druid House	2·02 ,,	5·5	,,
,,	Ilsington, Middlecott House	2·38 ,,	7·2	,,
,,	Chudleigh, Torquay W. W.	2·40 ,,	8·7	,,
,,	Budleigh Salterton	1·70 ,,	7·8	,,
,,	,, ,, E. Budleigh	1·81 ,,	7·3	,,
,,	Starcross, Powderham Castle	1·91 ,,	8·0	,,
,,	Exeter, St. Leonard Road	1·83 ,,	8·3	,,
,,	,, Devon and Exeter Inst.	1·90 ,,	8·6	,,
,,	,, Hospital	1·75 ,,	8·0	,,
,,	,, Brampford Speke	1·86 ,,	7·9	,,
,,	Axminster, Furzebrook	1·55 ,,	7·0	,,
,,	Bradninch Vicarage	1·86 ,,	7·6	,,
,,	Cullompton	1·80 ,,	7·4	,,
,,	Tiverton, Rose Bank	1·89 ,,	7·3	,,
,,	,, St. Peter's Street	1·89 ,,	7·4	,,
,,	Penzance, Penlee	2·15 ,,	7·2	,,
,,	,, St. Clare	2·07 ,,	7·4	,,
,,	,, Poltair	2·12 ,,	6·6	,,
,,	Marazion	2·25 ,,	8·1	,,
,,	Falmouth, New Obs. (11 in. g.)	2·30 ,,	7·8	,,
,,	,, ,, (8 in. g.)	2·25 ,,	8·1	,,

V.	Truro, Porthgwidden	2·15 in.	or 7·2 per cent.
,,	St. Austell, Trevarna	2·19 ,,	6·3 ,,
,,	Lostwithiel, Lanwithan	2·06 ,,	6·5 ,,
,,	Saltash, Pentillie Castle	2·00 ,,	5·8 ,,
,,	Bodmin, Lanhydrock	2·18 ,,	6·0 ,,
,,	,, Castle Street (1 ft.)	2·06 ,,	6·0 ,,
,,	,, Fore Street	2·06 ,,	6·0 ,,
,,	Callington, Hingston Down	2·12 ,,	5·9 ,,
,,	Launceston, Hexworthy	2·41 ,,	7·3 ,,
,,	Chard, Cricket St. Thomas	1·95 ,,	7·7 ,,
VI.	Northleach, Hampnett Rectory	1·46 ,,	7·2 ,,
,,	Great Malvern, Davenham Bank	2·06 ,,	11·2 ,,
VII.	Tolethorpe Hall [Stamford]	1·12 ,,	7·3 ,,
,,	Boston	·92 ,,	7·1 ,,
XI.	Tresco Abbey	1·79 ,,	7·1 ,,

NOVEMBER 1ST.

The M at a few scattered stations in Wales and Scotland.

XVII.	Braemar	1·80 in.	or 7·2 per cent.

NOVEMBER 5TH.

The M at half-a-dozen stations in Ireland.

XXI.	Navan, Balrath	1·58 in.	or 8·3 per cent.

NOVEMBER 6TH.

The M at 17 stations chiefly in the E. and S.E. of Scotland.

XVI.	Broughty Ferry, Douglas Ho.	1·81 in.	or 8·4 per cent.
,,	Dundee, Eastern Necropolis (*old g.*)	1·45 ,,	7·2 ,,
,,	,, ,, ,, (*new g.*)	1·42 ,,	7·0 ,,
,,	Craigton	2·21 ,,	7·0 ,,

NOVEMBER 21ST.

The M at two stations in Division V.

V.	Liskeard, Dean Terrace	2·73 in.	or 7·5 per cent.

NOVEMBER 25TH.

The M at six stations in the W. of Scotland.

XV.	Cantire, Stonefield, Tarbert	2·03 in.	or 3·6 per cent.
XVIII.	Loch Shiel, Glenaladale	2·56 ,,	2·8 ,,

NOVEMBER 26TH.

The M at a dozen stations in the N. of England.

X.	Borrowdale Vicarage	2·99 in.	or 3·9 per cent.

DECEMBER 3RD.

The Mountain Observatory of the British Isles had a M all to itself; with one exception the largest fall of the year, and which appropriately concludes our chronicle.

XVIII.	Ben Nevis Observatory	3·69 in.	or 2·9 per cent.

PART II.—ABSTRACT.

THE exceptional character of the Rainfall of 1887 comes out in every way that we discuss it. In this section we have to deal with the greatest rainfall in any 24 hours (ending at 9 a.m.), throughout the year, and Table V. shows that we have this information from the unprecedentedly large number of 1,921 stations. In Table I. is set out, in accordance with our usual practice, the 16 (out of these 1921) at which the largest amounts were recorded, but with few exceptions they are extremely small. For instance, in 1886 all the highest 16 had $3\frac{1}{2}$ inches or more, this year only two had as much as the least of the first 16 of 1886. The entry which heads the list (Queen's College, Galway), with nearly 5 inches, is in fact the only quite exceptional record of the year. The fall on Ben Nevis and at three stations in the Lake district are in no way exceptional, and all the other falls are below 3 inches.

In Tables II., IV. and V. we have introduced a new feature, by marking the highest value in each column, and the lowest, with a + and − respectively.

Judged by Table II., the max. falls in 1887 were not four-fifths of their average amount.

In Tables III. and IV. these values are considered in another light. Table III. contains those sixteen cases in which the fall in the one day was the largest proportion of the total fall in the year. Considered as percentages, they are actually rather larger than usual (see Table IV.), the average being for 1887 9·5 per cent., against the mean for 22 years of 9·3, but a glance at the next column explains all, and shows what were the facts. The average fall at these stations was 2·11 inches in 1887, but for 22 years the average has been 2·73 in., therefore the values in 1887 have only been about three-quarters of their usual amount; but as the total fall of rain in the year has also been very small, these small maxima on the wettest day, bear just about their usual proportion to the yearly total.

TABLE I.—*Maximum Falls in* 1887.

Date.	Div.	Station.	Depth.	Per Cent.	Fall in year.
Sept. 1 ...	XXII.	Galway, Queen's College.....	4·93in.	13·0	37·93 in.
Dec. 3 ...	XVIII.	Ben Nevis Observatory	3·69 ,,	2·9	128·59 ,,
Feb. 22 ...	X.	Seathwaite.....	3·20 ,,	3·2	101·57 ,,
Jan. 19 ...	,,	Longsleddale.....	3·00 ,,	6·0	50·38 ,,
Nov. 26 ...	,,	Borrowdale Vicarage	2·99 ,,	3·9	75·96 ,,
Aug. 17 ...	XII.	Kelso, Springwood Park.....	2·73 ,,	10·4	26·16 ,,
Nov. 21 ...	V.	Liskeard, Dean Terrace	2·73 ,,	7·5	36·22 ,,
Feb. 23 ...	XV.	Conaglen	2·72 ,,	3·6	75·84 ,,
Nov. 26 ...	XVIII.	Loch Shiel, Glenaladale	2·56 ,,	2·8	93·15 ,,
Oct. 26 ...	XX.	Valencia Observatory	2·49 ,,	5·7	43·69 ,,
Jan. 11 ...	XI.	Llangerniew, Hafodunos ...	2·42 ,,	6·1	39·86 ,,
Oct. 29 ..	V.	Launceston, Hexworthy.....	2·41 ,,	7·3	33·16 ,,
,, 29 ...	,,	Chudleigh, Torquay W.W..	2·40 ,,	8·7	27·54 ,,
,, 29 ...	,,	Ilsington, Middlecott House	2·38 ,,	7·2	33·18 ,,
Jan. 25 ...	XX.	Kenmare, Derreen	2·33 ,,	4·9	47·29 ,,
,, 11 ..	X.	Patterdale Hall	2·31 ,,	3·9	58·87 ,,

TABLE II.—*Comparison of Maximum Falls with those in previous years.*

	MEAN.			ABSOLUTE.			
Years.	Depth.	Per Cent.	Mean total fall at these stations.	Depth.	Per Cent.	Station.	Division.
	in.		in.	in.			
1865 ...	3·67	6·4	61·8	6·41	5·5	Seathwaite.....	X.
1866 ...	3·40	—4·4	86·2	6·38	3·6	Seathwaite.....	,,
1867 ...	3·17	9·0	42·5	4·78	17·7	Hartlip	II.
1868 ...	3·32	6·1	65·9	5·60	4·8	Camusinas.....	XV.
1869 ...	3·68	5·0	77·7	6·70	4·5	Seathwaite.....	X.
1870 ...	3·20	7·5	43·8	6·00	17·1	Tongue	XIX.
1871 ...	3·08	5·7	61·6	4·24	9·6	Melbury.....	V.
1872 ...	+4·10	6·6	73·1	5·82	3·2	Seathwaite.....	X.
1873 ...	2·97	6·2	60·7	4·20	2·9	Seathwaite	,,
1874 ...	3·96	4·6	86·5	5·32	4·4	Bryn Gwynant	XI.
1875 ...	4·52	7·8	63·9	5·33	9·7	NewportW.W.	,,
1876 ...	3·37	5·9	57·6	4·50	5·5	Foffany	XXIII.
1877 ...	3·77	4·6	93·4	4·98	5·3	Skye, Portree..	XVIII.
1878 ...	3·57	7·4	57·2	4·24	8·6	Springfield ...	XI.
1879 ...	3·66	+9·5	50·4	—4·05	4·1	Little Langdale	X.
1880 ...	3·50	7·7	51·1	4·75	3·9	Seathwaite.....	,,
1881 ...	3·65	4·9	83·1	5·42	4·7	Sligachan	XVIII.
1882 ...	3·28	4·5	84·3	4·51	3·0	Seathwaite ...	X.
1883 ...	3·69	6·1	72·4	5·27	9·0	Glenesmoel ...	XXI.
1884 ...	3·45	4·7	80·7	+6·78	5·0	Seathwaite ...	X.
1885 ...	3·45	5·8	68·2	4·62	3·2	Seathwaite ...	,,
1886 ...	3·77	7·7	58·7	4·20	9·9	Little Bredy ...	V.
Mean ...	3·56	6·3	67·3	5·19	6·6	.....	...
1887 ...	—2·83	6·1	56·8	4·93	13·0	Galway	XXII.
Diff. ...	— ·73	— ·2	—10·5	— ·26	+6·4	.....	...

TABLE III.—*Maximum Per Centages in* 1887.

Date.	Div.	Station.	Per Cent.	Depth.	Fall in year.
Sept. 1 ...	XXII.	Galway, Queen's College.....	13·0	4·93 in.	37·93 in.
Oct. 29 ...	VI.	Gt. Malvern, Davenham Bank	11·2	2·06 ,,	18·46 ,,
Aug. 17 ...	XII.	Kelso, Springwood Park.....	10·4	2·73 ,,	26·16 ,,
Jan. 13 ...	II.	Wallingford Castle	10·0	1·86 ,,	18·62 ,,
,, 7 ...	VI.	Atherstone	9·8	2·10 ,,	21·54 ,,
Aug. 17 ...	II.	Wimbledon	9·7	2·08 ,,	21·38 ,,
,, 17 ...	I.	Ealing Local Board.....	9·2	1·75 ,,	19·09 ,,
Jan. 3 ...	V.	Broad Chalke	9·0	2·07 ,,	23·12 ,,
Aug. 17 ...	I.	Gunnersbury Station	9·0	1·65 ,,	18·39 ,,
July 16 ...	IV.	Ingatestone	8·9	1·80 ,,	20·22 ,,
Aug. 18 ...	VII.	Horncastle, Bucknall	8·8	1·58 ,,	17·98 ,,
,, 18 ...	IV.	Holt, Letheringsett Hall ...	8·7	1·83 ,,	21·07 ,,
,, 30 ...	IX.	Doncaster, Hatfield.....	8·7	1·37 ,,	15·69 ,,
June 2 ...	V.	Buttermere	8·6	2·21 ,,	25·63 ,,
Oct. 29 ...	,,	Exeter, Devon & Exeter Inst.	8·6	1·90 ,,	22·18 ,,
Aug. 30 ...	II.	Osborne, Newbarn Cottage...	8·4	1·88 ,,	22·30 ,,

TABLE IV.—*Comparison of Maximum Per Centages with those in previous years.*

	MEAN.			ABSOLUTE.			
Years.	Per Cent.	Depth.	Mean total fall at these Stations.	Per Cent.	Depth.	Station.	Division.
		in.	in.		in.		
1865 ...	9·9	2·62	28·4	13·0	4·40	Fleckney.....	VII.
1866 ...	8·1	2·31	29·3	10·0	2·48	Burton	VI.
1867 ...	11·0	2·85	25·3	+17·7	4·78	Hartlip	II.
1868 ...	8·6	2·55	30·1	11·0	4·00	Tongue	XIX.
1869 ...	7·9	2·17	27·9	10·0	3·40	Tillydesk	XVII.
1870 ...	10·0	2·34	22·9	17·1	6·00	Tongue	XIX.
1871 ...	9·0	2·43	26·8	11·5	3·62	Warter	IX.
1872 ...	8·1	3·43	42·5	10·0	3·70	Hillington Hall	IV.
1873 ...	9·7	2·39	24·7	11·8	2·77	Oscott	VI.
1874 ...	9·2	2·16	23·7	11·9	2·50	Welwyn.. [Hall	III.
1875 ...	10·2	+3·76	37·5	13·2	3·95	Letheringsett ...	IV.
1876 ...	— 7·4	2·49	33·7	— 8·5	3·70	Cragside	X.
1877 ...	8·2	2·73	33·1	9·3	3·09	Wellington.....	VI.
1878 ...	10·2	3·05	30·0	11·8	3·90	Haverstock Hill	I.
1879 ...	10·9	3·31	30·5	12·3	3·80	CambridgeM.V.	III.
1880 ...	9·5	3·06	32·3	11·7	3·34	Marmont Pr. L.	,,
1881 ...	8·1	2·42	30·3	10·6	3·20	Aboyne Castle..	XVII.
1882 ...	7·7	2·54	33·4	9·1	2·80	Bothalhaugh ...	X.
1883 ...	9·7	3·00	31·1	12·3	4·31	Skegness.....	VII.
1884 ...	+11·7	2·33	20·0	13·8	2·66	Diss(Thelveton)	IV.
1885 ...	8·9	2·71	30·7	9·6	2·62	Beccles, Ellough	,,
1886 ...	10·1	3·32	32·7	11·5	4·10	Methley Park...	IX.
Mean ..	9·3	2·73	29·9	11·7	3·60	.....	...
1887 ...	9·5	—2·11	21·9	13·0	4·93	Galway	XXII.
Diff. ...	+ ·2	— ·62	— 8·0	+ 1·3	+1·33	.....	...

TABLE V.—*Comparison of the Mean of all the Maximum Falls of* 1887 *with similar data for previous years.*

Years.	Number of Returns.	Mean Percentage.	Mean Amount.	Mean Total Fall in year.	Ratio taking 34=100.	Total Fall being assumed =34in. Mean Max. =
			in.	in.		
1865.....	481	+ 5·1	1·70	33	97	5·0 per cent
1866.....	590	3·7	1·48	40	118	4·4 ,,
1867.....	584	4·6	1·44	31	91	4·2 ,,
1868.....	676	4·3	1·43	33	97	4·2 ,,
1869.....	637	4·2	1·42	34	100	4·2 ,,
1870.....	687	4·9	1·30	27	79	3·8 ,,
1871.....	752	4·9	1·49	30	88	4·4 ,,
1872.....	743	— 3·4	1·59	47	+ 138	4·7 ,,
1873.....	809	4·6	1·35	29	85	4·0 ,,
1874.....	1010	4·4	1·41	32	94	4·1 ,,
1875.....	1081	5·0	1·83	37	109	+5·4 ,,
1876.. ...	1112	3·9	1·49	38	112	4·4 ,,
1877.....	1180	3·8	1·56	41	121	4·6 ,,
1878.....	1186	4·3	1·49	35	103	4·4 ,,
1879.....	978	4·2	1·52	36	106	4·5 ,,
1880. ...	1117	4·8	+1·72	36	106	5·1 ,,
1881.....	1194	4·1	1·45	35	103	4·3 ,,
1882.....	1463	3·6	1·42	39	115	4·2 ,,
1883.....	1505	4·0	1·41	35	103	4·1 ,,
1884.....	1691	4·8	1·32	28	82	3·9 ,,
1885.....	1801	4·5	1·41	31	91	4·2 ,,
1886.....	1718	4·6	1·64	35	103	4·8 ,,
Mean ...	1045	4·4	1·49	35	102	4·4 ,,
1887.....	1921	4·5	—1·14	25	— 74	—3·4 ,,
Diff.....	+876	+ ·1	— ·35	—10	— 28	—1·0 ,,

Table V. differs from Tables I. and III., in that they give selected extremes, while Table V. deals with the whole number of daily values—this year with nearly 2,000. Column two shows the number dealt with, and how steadily and largely it has increased. Column two exactly confirms what we have just been remarking respecting Table V., namely, that the proportion of the yearly total which fell on the one wettest day was just the average, namely, one twenty-second of the yearly total. Column four, however, brings out the drought of 1887 very prominently; the average greatest fall on any one day in 1887 was only 1·14 in., which is scarcely three-quarters of the average, and less than in any other year as far back as the tables extend—that is to 1865 inclusive—the next lowest being 1·30 in. in 1870. All the values in this table concur in indicating that the max. falls of 1887 bore their usual proportion to the total fall in the year, but that that total was only about 73 per cent. of its mean value, *i.e.*, that the total fall of the year was about 27 per cent. below the average. When we come to a subsequent article we shall see what accordance exists between this indirect mode of determining it and the direct comparison of the yearly totals with the averages for the same stations.

THE DROUGHTS OF 1887.

I HAVE used the plural rather than the singular, because, although the whole year was very dry, there were several separate periods of drought, *e.g.*, the middle of January to the middle of March, the middle of April, a month or more dating from about June 6th, and the early part of August.

The notes of the observers on pages [1] to [131] have already given a mass of information upon the subject, which, by the frequency with which observers have drawn attention to it, proves both its exceptional intensity and its wide extent. As regards London, the tables in the article on an earlier page, "What is a drought?" may be referred to. They show that on the average of thirty years the total number of days of absolute droughts is 19, and the following are the only years when the number has been more than twice the average.

Years.	1858	1864	1868	1880	1887
Total days of absolute drought.	73	39	53	51	57

Analogous evidence is given by the table of partial droughts; the average aggregate of days of partial drought for the same period is 40; the years in which the number has been more than twice this value have been—

Years.	1858	1863	(1864)	1870	1880	1884	1887
Total days of partial drought.	85	83	(79)	93	142	89	105

From these figures it appears that (for the Metropolis) the droughty years may be classed in the following order:—Driest 1880, then 1887, 1858, 1864, 1870, 1884, 1863, and least 1868. This, in several respects, differs from popular opinion, but it must not be forgotten that the popular notion of a drought is a concrete one, formed of the joint effect of drought and of heat.

From several hundred press notices of the drought we select and abridge a few in the order of date as illustrative of the wide extent over which the drought prevailed and its varied effect.

June 29th.—The drought is seriously felt in N.E. Lancashire. The water companies have limited the supply, and at Burnley it is restricted to domestic use. In Cumberland and Westmoreland the pastures are so burned up that the farmers are selling their cattle at a sacrifice.

July 4th.—At Doncaster, the farmers say that their crops are being burned up and their potatoes spoiled. The Thirsk district is in a fearful state, some scores of pumps are dry, and pastures have scarcely a blade of grass. The *Dublin Farmer's Gazette* reports root crops injured by drought.

July 12th.—The drought is very severe in Yorkshire, water frequently has to be fetched long distances, as most of the ponds and wells in elevated localities are exhausted. At Barry, Glamorganshire, water is selling at ½d. a bucket. At Haverfordwest there is only 3 ft. 4 in. of water in the reservoir against 16 ft. last year. On some Cumberland Fells water is being carried to the grouse.

As regards two important water works, the following data were published :—

	Bradford.					Halifax.
Station—	Hewenden.	Doe Park.	Stubden.	Barden.	Grimwith.	Warley Moor
	in.	in.	in.	in.	in.	in.
Average. Jan.—June.	17·17	20·15	22·70	19·10	20·30	20·11
1887. Jan.—June.	7·48	9·96	10·43	9·13	10·80	9·94
1887. Per cent. of average	44	50	46	49	53	49

At Dewsbury, also, the fall was less than half the average, and the supply was restricted. At Pitlochry the supply was deficient, and new works were ordered. At Bedale Petty Sessions, on July 26th, the rural sanitary authority applied that, in consequence of the drought, a well, formerly closed at its request, might be re-opened, so as to afford a temporary supply.

August 9th.—The short grass on the downs in the Isle of Wight was reported as quite burnt up.

August 11th.—The Cheshire pastures are so dry that the cattle have to be stall fed as in winter, a fact not previously on record. Many cows have gone dry, and the make of cheese will be 25 per cent. below the average.

August 16th.—About 4,000 quarry men in North Wales were thrown out of work owing to failure of streams supplying the quarries.

About 1,000 men were thrown out at the Llanelly tin works owing to the supply from the Cwmlledi reservoir being obliged to be stopped. At Mountain Ash, typhoid fever broke out, attributed to drought and bad drainage.

August 22nd.—Owing to the long drought, the river Lowman, at Tiverton, and the Exe, at Exeter, became dreadfully foul; in fact, the latter was described as little better than a sewer.

Respecting the droughts of the South East of England, the following important tables, based upon Mr. Prince's observations, are reprinted from *The Times*:—

Absolute Droughts of 30 *days and upwards at Uckfield.*

Year.	Began.	Ended.	Lasted.
			days.
1842.....	June 30.....	August 9	41
1844.....	November 18 . .	December 18 ...	30
1846.....	May 21	June 22	32
1887.....	June 4	July 3	30

Partial Droughts of 35 *days and upwards at Uckfield.*

Year.	Began.	Ended.	Lasted.	Amount.
			days.	in.
1842.....	June 30.....	August 9	41	·00
1844.....	April 13.....	May 28	45	·15
1844.....	November 15 ...	December 27 ...	43	·06
1847.... .	June 24	August 4	42	·25
1852.....	February 10.....	March 28	48	·16
1854.....	February 16.....	April 21	35	·25
1864.....	July 4	August 19.....	47	·24
1865.....	August 24.....	October 7	45	·03
1869.....	June 16	July 31	47	·20
1887.....	June 4	July 15	42	·25

Respecting the drought at Exeter, the Rev. P. H. Newnham reports:—"Since 1815 there have been only five occasions of seven consecutive months of drought, viz.:—

November, 1837, to May, 1838, total rain, 8·14 in.
February, 1840, to August, 1840, ,, ,, 7·16 ,,
December, 1846, to June, 1847, ,, ,, 5·76 ,,
January, 1864, to July, 1864, ,, ,, 8·18 ,,
February, 1887, to August, 1887, ,, ,, 6·02 ,,

"For heat and protracted drought combined, the summer of 1887 has been the most exceptional of any concerning which we have accurate records."

August 27th.—The village of Langho, near Blackburn, is in a particularly bad plight, for the whole district has been without water for a month. The little reservoir on Billington Moor is dry, and all water has to be fetched a mile or more in barrels and milk cans.

Another account is as follows :—

"In spite of the rain which fell a week ago the people residing in Langho, near Blackburn, are suffering from water famine. All the water used has to be brought from Clitheroe by rail, in milk cans, and it is served out to the people by the station master, who allows a bucket to each family. Beyond this there is not a drop of water in the district."

September 1st. *Manchester.*—Although the recent rains have increased the yield from the springs, the supply does not exceed the consumption, and the city will therefore be kept without water at night for another fortnight.

September 5th. *North-East Lancashire.*—The heavy rainfall of the past few days has so far increased the water supply that several mills and workshops have been able to resume work. On the morning of the 3rd it was found that the water in the Leeds and Liverpool canal had risen 6 inches, and traffic will shortly be resumed.

September 28th. *The Fens.*—The prolonged drought is causing serious inconvenience. Good water has often to be fetched from long distances.

September 29th. *Manchester.*—"In spite of the recent heavy rains, the stock of water at the disposal of the Manchester Corporation continues to decrease. It was reported to the Waterworks Committee yesterday that the water in the reservoirs now will only afford a supply, at the present rate of consumption, for 26 days, and with the springs for 36 days. This is the smallest stock of water that has been in the reservoirs during the year. The Committee decided to continue the restrictions on the supply to consumers."—*Evening Standard*, September 9th, 1887.

October 25th. *Newry, Ireland.*—The unprecedented drought which prevailed during the summer months, and indeed up to the present time, is being severely felt just now among all classes. To-day the large mills of the Bessbrook Spinning Company, where over 2,000 hands are employed, had to be stopped owing to the non-supply of water in the pond which fed the boilers. All the tributaries and streams which fed the ponds are also dried up.

December 6th. *Liverpool.*—"A correspondent states that Liverpool is in danger of a water famine. During the past fortnight the stock of water at the Rivington reservoirs has decreased 180,000,000 gallons, a circumstance said to be unprecedented for the months of November and December. The district supplied by the Liverpool Corporation, including the city and a number of surrounding villages, is to be placed on short allowance. The cause of the great reduction in storage supply is the unprecedentedly dry summer and autumn."—*Sheffield Independent*, December 7th, 1887.

It would be irregular to continue these quotations into 1888. Suffice it, therefore, to say that in several localities matters were worse in May, 1888, than in May, 1887.

Droughts as indicated by Total Monthly Rainfall.

Driest 3 Months.			Driest 4 Months.			Driest 6 Months.			1887.		
Period.	Amnt.	Per cent.	Period.	Amnt.	Per cent.	Period.	Amnt.	Per cent.	Driest 3.	Driest 4.	Driest 6.
	in.			in.			in.		in.	in.	in.
Camden Square (Middlesex)— 1870 Apr.–June	2·00	7	1870 Apr.-July	3·22	12	1870 Feb.–July	6·74	25	3·39	4·80	6·97
Hitchen (Herts)— 1868 May–July	1·23	5	1868 Apr.–July	2·88	11	1868 Feb.–July	5·89	23	2·79	5·17	7·36
Cossey (Norwich)— 1858 Jan.–Mar.	1·68	6	1863 Feb.–May	3·11	11	1870 Jan.–June	6·16	22	3·92	5·35	8·24
Bodmin (Cornwall)— 1869 June–Aug.	2·25	4	**1887** Apr.–July	4·75	9	**1887** Feb.-July	7·75	14	3·14	**4·75**	**7·75**
Street (Somerset)— 1858 Jan.–Mar.	2·59	8	1870 Mar–June	3·93	12	1870 Feb.–July	7·04	21	3·45	5·20	8·28
Orleton (Worcester)— 1854 Feb.–Apr.	2·24	7	1863 Feb.–May	4·05	12	**1887** Feb.–July	7·66	23	2·57	4·77	**7·66**
Redmires (York)— 1868 May–July	2·24	5	1868 Apr.–July	4·94	12	**1887** Feb.–July	8·73	20	4·02	5·93	**8·73**
Warley Moor (York)— 1868 May–July	1·70	4	1868 Apr.–July	3·80	8	**1887** Jan.–June	9·94	22	4·15	6·52	**9·94**
N. Shields (Northumberland)— 1868 May–July	1·95	7	**1887** Apr.–July	3·33	12	**1887** Feb.–July	5·53	20	2·53	**3·33**	**5·53**
Seathwaite (Cumberland)— 1859 June–Aug.	10·32	8	1873 Feb.–May	17·69	13	1855 Jan.–June	32·27	24	16·97	21·49	36·28
Haverfordwest (Pembroke)— **1887** Apr–June.	3·14	6	**1887** Mar–June	5·46	10	**1887** Feb.–July	9·78	18	**3·14**	**5·46**	**9·78**
Llandudno (Carnarvon)— 1868 May–July	1·15	3	1868 Apr.–July	2·61	8	1868 Apr.-Sep.	6·11	18	3·40	4·67	7·05
N. Esk Res. (Peebles)— 1865 Feb.–Apr.	3·25	8	1859 May–Sep.	5·41	14	1870 Mar–Aug.	8·80	23	4·65	6·60	10·80
Kilmory (Argyll)— 1873 Feb.–Apr.	4·40	7	1873 Feb.–May	6·90	11	1869 Mar–Aug.	12·50	20	6·28	9·72	19·02
Arbroath (Forfar)— 1854 Feb.–Apr.	1·90	6	1852 Feb.–May	3·77	12	1870 Mar–Aug.	6·91	23	3·65	5·33	8·08
Culloden (Inverness)— 1852 Mar.–May	1·15	5	1870 Feb.–May	2·73	11	1853 Nov.-Apr.	5·09	20	2·46	3·59	6·12
Blackrock (Cork)— 1869 June–Aug.	1·75	4	1868 Apr.–July	3·86*	8	**1887** Feb.–July	7·15	15	2·42	3·87	**7·15**
Belfast Q.C. (Antrim)— 1875 Feb.–Apr.	2·35	7	1875 Feb.–May	3·86	11	**1887** Jan.–June	8·14	23	3·76	4·70	**8·14**

* In **1887**, April–July, 3·87.

The data, as regards individual months, are given in ample detail in the regular tables (pages [159] to [166]), in the series of maps, and in the notes on the months (pages [155] to [158]), besides all the observers' remarks on pages [39] to [87]. I therefore deal here not with individual months, but with groups of months, and have prepared the following novel, and I venture to think important, table. Although it does not occupy much space, it is the epitome of considerable work. I had 18 records selected, none of less than a quarter of a century, and so chosen as to be widely distributed over the British Isles. From each of these was extracted the driest 3 months, driest 4 months and driest 6 months, as well as the amount for the driest 3, 4 and 6 months in 1887. As in a great many cases the 1887 values are not the lowest, I have added them in separate columns at the end of the table. Moreover, to ensure distinctness, heavy type is used for the 1887 values wherever they are unprecedented.

As regards *three* consecutive months, the 1887 value was unprecedented at only one station, Haverfordwest, in the S.W. of Wales.

As regards *four* consecutive months, the 1887 value was unprecedented at Bodmin, North Shields, Haverfordwest and (almost) at Cork.

As regards *six* consecutive months, the 1887 value was unprecedented at many stations—Bodmin, Orleton, Redmires (the Sheffield Water Supply), Warley Moor (the Halifax Water Supply), North Shields, Haverfordwest, Cork and Belfast. There is, therefore, no reasonable doubt that the same would prove to be the case at dozens of other stations in the vicinity of these, but the evidence of these typical stations is sufficient.

In another part of this volume I stated that probably ere long droughts would be proved to bear a tolerably constant relation to the mean rainfall, and might be expressed as percentages of it. I have applied this method to the table under notice, and added columns giving the percentage which the fall in the driest consecutive 3, 4 and 6 months was of the mean *yearly* total 1870-79. The results may be regarded as satisfactory, for we have stations in this list with mean falls from 25 inches to 135 inches, and in all sorts of localities, yet here is an abstract of the percentages :—

	3 months.	4 months.	6 months.
Highest	8	14	25
Mean	6	11	21
Lowest	3	8	14

Perhaps it will make this clearer if we illustrate it by applying it to an imaginary case. Suppose that a town has a mean rainfall of 30 inches per annum, we shall have during a period of a quarter of a century at least one instance in which the fall will be during

3 months.	4 months.	6 months.
Between 2·40 in. & 0·90 in.	Between 4·20 in. & 2·40 in.	Between 7·50 & 4·20 in.
Most probably 1·80 in.	Most probably 3·30 in.	Most probably 6·30 in.

It is, of course, too early to regard the above percentages as established; probably it will prove that in wet districts the percentages will be higher than in dry ones, but we do not anticipate that they will differ materially from the values given above.

The drought is also illustrated by the plate of curves which forms the frontispiece. They are, we hope, so plain as to need no explanation. The stations are nearly equidistant, and represent all parts of the British Isles. The sinuous line at the top of each represents the mean rainfall at the station in each month during the ten years 1870-79, and the shaded portion the actual fall in 1887. The severity of the drought and its relative intensity in different places are thus rendered perfectly evident.

The details of the intensity of the drought, at fifty typical stations, as calculated from the daily records from each, are given in the usual (but this year exceptionally long) table of droughts, and to bridge over the difficulty of comparison caused by changed definition of a partial drought, they have been worked out in duplicate, and are given both on the old system and on the new. This enables us to conclude this article with the following little table, which proves very clearly the exceptional intensity, duration, and generality of the drought of 1887.

Year.	Absolute Droughts.				Partial Droughts.			
	No.	Average Duration.	Greatest Duration.	Stations without one.	No.	Average Duration.	Greatest Duration.	Stations without one.
1880.....	75	18 days	26 days	6	56	32 days	41 days	13
1884.....	46	17 ,,	22 ,,	13	15	30 ,,	33 ,,	36
1886.....	48	17 ,,	26 ,,	18	19	31 ,,	41 ,,	31
1887.....	103	20 ,,	34 ,,	2	69	35 ,,	51 ,,	8

In conclusion, I recommend to all, the excellent paper on "The Drought of 1887 and some of its effects on Irish Agriculture," read before the Statistical and Social Enquiry Society of Ireland by R. M. Barrington, Esq., M.A., LL.B.

DROUGHTS IN 1887.

Station and County.	Absolute Droughts.			Partial Droughts (old definition).				Partial Droughts (new definition).			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amnt.	Began.	Ended.	Lasted.	Amnt.
			days			days	in.			days	in.
London (Camden Square, N.W.)	*Feb. 3	Feb. 16	14	Jan. 20	Feb. 16	28	·19	Jan. 20	Mar 10	50	·49
Middlesex.	April 6	April 20	15	June 4	July 10	37	16	June 4	July 14	41	·29
	June 9	July 3	25								
	July 30	Aug. 15	17								
Dorking (Abinger Hall)	*April 7	April 20	14	June 4	July 23	50	·20	June 4	July 25	52	·51
Surrey.	June 6	July 3	28								
	*July 30	Aug. 12	14								
Hythe	Feb. 21	Mar. 10	18	Jan. 20	Feb. 17	29	·24	Jan. 20	Mar. 10	50	·46
Kent.	June 4	July 3	30	Feb 3	Mar. 10	36	·24	June 4	Aug. 15	73	·52
				June 4	July 15	42	·13				
				July 17	Aug. 15	30	·19				
Welwyn (Datchworth Rect.)	June 4	July 3	30	June 3	July 23	51	·23	June 3	Aug. 15	74	72
Herts.	Aug. 1	Aug. 15	15								
Maxey Vic, [Market Deeping]	June 9	July 3	25	June 4	July 14	41	·25				
Northampton.				June 9	July 25	47	·25	June 4	Aug. 11	69	60
Geldeston [Beccles]	June 9	July 3	25	May 28	July 3	37	18	Feb. 3	Mar. 10	36	·28
Norfolk.								May 27	July 3	38	·35
Calne (High Street)	*Feb. 25	Mar. 10	14	June 3	July 8	36	·24	Feb. 4	Mar. 10	35	34
Wilts.	April 6	April 21	16					June 3	July 8	36	·24
	June 9	July 3	25								
	July 28	Aug. 11	15								
Torquay (Lamorna)	April 6	April 20	15	Feb. 4	Mar. 14	39	·20	Feb. 4	Mar. 14	39	·20
Devon	June 7	July 7	31	Mar. 23	April 21	30	·22	Mar 23	April 21	30	·22
				June 1	July 8	38	·20	June 1	July 14	44	·33
				June 3	July 11	39	·24				
				June 7	July 14	38	·25				
Bideford (Northam)	*Feb. 25	Mar. 10	14	Feb. 5	Mar. 10	34	·24	Feb. 5	Mar. 13	37	·32
Devon	April 6	April 20	15	Feb. 12	Mar. 13	30	·25	June 1	July 12	42	·41
	June 8	July 7	30	June 1	July 8	38	·18				
	July 31	Aug. 15	16								
St. Austell (Trevarna)	Feb. 25	Mar. 13	17	Mar. 25	April 21	28	·23				
Cornwall.	April 5	April 20	16	May 31	July 7	38	·12	May 31	July 8	39	·27
	June 8	July 3	26								
	July 29	Aug. 15	18								
Ilminster (White Lackington)	*Feb. 25	Mar. 10	14	Feb. 3	Mar 10	36	·20	Feb. 3	Mar. 13	39	·29
Somerset.	April 6	April 21	16	Feb. 4	Mar 13	38	·24	Mar. 23	April 21	30	·26
	June 4	July 7	34	Mar. 24	April 21	29	·25	June 3	July 23	51	·50
	July 28	Aug. 15	19	June 3	July 13	41	·18				
Ross (The Graig)	*Feb. 25	Mar. 10	14	Feb. 3	Mar. 10	36	·23	Feb. 3	Mar. 13	39	·33
Hereford.	April 6	April 20	15	June 4	July 13	40	·18	June 3	July 13	41	·28
	June 7	July 3	27								
	*July 29	Aug. 11	14								
Patshull Gardens	*Feb. 26	Mar. 11	14	June 5	July 4	30	·10	Feb. 4	Mar. 11	36	27
Stafford.	April 8	April 22	15	June 10	July 13	34	·24	June 5	July 13	39	·34
	June 10	July 4	25								
Market Overton	June 4	July 3	30	June 4	July 4	31	·21	June 4	July 14	41	39
Rutland.											
Worksop (Hodsock Priory)	June 4	July 3	30	May 28	July 3	37	·23	May 28	July 4	38	·37
Notts.											
Chesterfield (Gas Works)	June 4	July 3	30	Feb. 3	Mar. 10	36	13	Feb. 3	Mar. 10	36	·13
Derby.				June 3	July 3	31	·17	June 4	July 15	42	·33
				June 4	July 4	31	·16				
St. Michael's-on-Wyre	*Feb. 25	Mar. 10	14	June 4	July 8	35	·22	June 4	July 9	36	·36
Lancashire.	April 6	April 20	15								
	June 4	July 3	30								
Thornton-in-Craven	April 5	April 19	15	May 25	July 4	41	·24	May 22	July 4	44	·41
York, W.R.	June 7	July 3	27								
Cottingham	Feb. 21	Mar. 10	18	Jan 20	Feb. 16	28	·25	Jan. 10	Mar. 10	60	·55
York, E.R.	June 4	July 3	30	Feb. 3	Mar. 10	36	·19	May 25	July 14	51	·46
				May 25	July 4	41	·25				
				May 28	July 12	46	·25				
				June 4	July 14	41	·25				
Darlington (South End)	June 12	July 2	21	June 5	July 10	36	24	June 4	July 23	50	·50
Durham.											
Morpeth (Bothalhaugh)	June 7	July 2	26	June 5	July 3	29	·10	Feb. 3	Mar. 8	34	·31
Northumberland.								June 4	July 3	30	·30
Pawston [Coldstream]	Feb. 21	Mar. 7	15	Feb 4	Mar. 7	32	24	Feb. 3	Mar. 8	34	·31
Northumberland	June 7	July 2	26	June 5	July 2	28	·18				
Blencowe School	June 14	July 2	19	May 23	July 4	43	·25	May 21	July 4	45	·43
Cumberland.											
Chepstow (Shirenewton Hall)	April 7	April 21	15	June 5	July 9	35	·20	June 5	July 13	39	32
Monmouth.	June 10	July 4	25								
	July 30	Aug. 16	18								
Haverfordwest (High Street)	April 6	April 20	15	June 8	July 7	30	·14	June 8	July 7	30	14
Pembroke.	June 8	July 3	26								
Llanidloes (Broomcliffe)	*Feb. 25	Mar. 10	14	June 8	July 7	30	·23	June 8	July 7	30	23
Montgomery.	April 6	April 20	15								
	June 9	July 3	25								
Halkyn	*Feb. 25	Mar. 10	14	June 4	July 5	32	·23	June 4	July 5	32	·23
Flint.	June 9	July 3	25								
Ruabon (Wynnstay)	*Feb 25	Mar. 10	14	June 4	July 13	40	·19	Feb. 4	Mar. 10	35	·30
Denbigh.	April 6	April 20	15					June 4	July 15	42	·32
	June 9	July 3	25								
Garlieston (Galloway House)	June 8	July 2	25	June 5	July 2	28	·15	May 23	July 2	41	·41
Wigton.											
Cargen [Dumfries]	Feb. 5	Feb. 19	15								
Kirkcudbright.	April 5	April 19	15	None				None			
	June 9	July 1	23								
Melrose (Asylum)	June 19	July 3	15	Feb. 6	Mar. 9	32	·22	Feb. 4	Mar. 9	34	·30
Roxburgh.											
Edinburgh (Blacket Place)	June 15	July 2	18	June 5	July 2	28	·12	May 27	July 2	37	·36
Edinburgh.											
Old Cumnock	*April 5	April 18	14	None				None			
Ayr.	June 15	July 3	19								
Killearn (Old Ballikinrain)	April 4	April 18	15	None				None			
Stirling.	June 16	July 2	17								
Strontian (Laudale)	None			None				None			
Argyll.											
Islay (Ardbeg)	June 16	July 1	16	None				None			
Argyll.											
Kirriemuir (Lintrathen)	*April 7	April 20	14	None				None			
Forfar.	June 15	July 4	20								
Midmar (Dun Echt Observatory)	Feb. 19	Mar. 8	18	Feb. 5	Mar. 8	32	·23	Feb. 4	Mar. 9	34	·32
Aberdeen.											
Alness (Ardross Castle)	None			None				None			
Ross.											
Golspie, H.R.S.	June 14	July 4	21	None				None			
Sutherland.											
Cork (Blackrock)	*April 6	April 19	14	Mar. 24	April 21	29	·22	Mar. 23	April 21	30	·30
Cork.	June 8	July 3	26	June 7	July 7	31	23	June 8	July 11	34	·31
				Sept. 28	Oct. 25	28	·13	Sept 12	Oct. 25	44	·44
Killarney (Woodlawn)	April 5	April 19	15	June 8	July 8	31	·22	June 8	July 8	31	·22
Kerry.	June 9	July 2	24								
Portlaw (Mayfield)	*Feb. 25	Mar. 10	14	June 8	July 8	31	·24	June 8	July 11	34	·28
Waterford.	*April 6	April 19	14								
	June 8	July 3	26								
Limerick (Kilcornan)	April 5	April 20	16	June 1	July 3	33	·24	May 23	July 7	46	·46
Limerick.	June 8	July 3	26	June 7	July 7	31	·19				
	Oct. 8	Oct 25	18								
Bray (Fassaroe)	*Feb. 25	Mar. 10	14	June 2	July 7	36	·23	June 1	July 8	38	·36
Wicklow.	April 6	April 20	15	June 8	July 11	34	·22				
	June 8	July 7	30								
Athlone (Twyford)	*April 6	April 19	14	June 2	July 2	31	·24	May 23	July 2	41	·35
Westmeath.	June 9	July 2	24								
Ballinasloe (Garbally)	*April 7	April 20	14	June 7	July 7	31	·20	June 2	July 3	32	·32
Galway	June 10	July 3	24								
Collooney (Markree Observatory)	*April 6	April 19	14	None				None			
Sligo.	June 14	July 2	19								
Belfast (Antrim Road)	*April 6	April 19	14	June 6	July 2	28	·20	June 9	July 8	30	·27
Antrim.	June 9	July 2	24								
Stewartstown (Ardtrea Rectory)	June 9	July 2	24	June 4	July 2	29	·25	June 4	July 2	29	·25
Tyrone.											

* Droughts which on the revised definition would be excluded.

Face p. [154].

MONTHLY RAINFALL OF 1887.

In addition to the tables on the following pages, the subject of monthly rainfall is fully dealt with on pages [39] to [87] by the observers, and, as we have mentioned in the previous article, the frontispiece gives the monthly fall and its relation to the average at each of 14 widely spread stations. The two pages of maps of monthly rainfall also afford much information, so that all that remains necessary is the following brief note on each individual month.

JANUARY.

The precipitation over the greater part of the British Isles was chiefly snow, very little falling in the latter part of the month. The distribution of the fall was irregular, but taken as a whole, it was decidedly small, several stations having little more than half the average. Over the E. side of England N. of the Thames the deficiency was not considerable, and Scotland N. of the Tay had about an average fall. The records for the W., S.W., and N.W. of Ireland were small, while in the E. and S.E. they nearly reached the average.

FEBRUARY.

February completely belied its character of "February fill dyke," for in England it was one of the driest months recorded, with exceptionally few wet days for a winter month.

The observer at Orleton writes:—"Rainfall less than that of any February for the last 56 years," and although few records extend over such a long period, dozens of observers make a similar statement for records of ten, twenty, or thirty years.

Taking the mean of the records of the 50 stations printed in the *Meteorological Magazine*, we obtain the following table:—

	Total fall.	Percentage of average for Feb., 1870-79.
England	·68 in.	30
Wales	1·23 ,,	27
Scotland	2·73 ,,	84
Ireland	1·50 ,,	47
Mean	1·54	47

Little need be added to the above table. England and Wales were uniformly dry. In Scotland the fall passed gradually from a moderate excess in the western half to a similar deficiency in the E.,

giving for the whole country nearly the average. Ireland was generally dry, but the fall in the extreme W. was large.

MARCH.

March was not a striking month as regards rainfall, and the map, without one plus and with a fair sprinkling of minus signs, perhaps suggests a month drier than March really was, though the fall certainly did not reach the average. The minus signs (indicating a deficiency of one inch or more) occur mostly at stations where the fall is considerable, and where, therefore, a variation of an inch is not excessive. Seathwaite had less than half the average fall, and over Ireland the month was decidedly dry. At many stations more than half the total of the month fell as snow; exceptionally heavy falls occurring about the middle of the month in Dorset, Somerset, Gloucestershire, Wales, and parts of Scotland.

APRIL.

Ordinarily this would have passed as very dry. But compared with such months as February and June it sinks into insignificance.

Taking England as a whole (and the distribution was fairly equable), the fall was less than two-thirds of the average, and over considerable districts in the S.W. and centre of the country it was about half. As in several other months of the year, the deficiency in Cornwall was exceptionally great. Seathwaite, as is so often the case in a month dry over the United Kingdom as a whole, had nearly twice its average fall. In Scotland and Ireland the fall was about 75 per cent. of the average.

MAY.

This month was, in some respects, the opposite of April, for England had nearly the average fall over the greater part of the country, though the falls were small in the S.W., while Scotland had a deficiency, roughly speaking, of 30 per cent., and Ireland of rather more in the S. and E., and rather less in the W. and N., with even an excess at a few stations in the extreme N.

JUNE.

It would require a volume to do this month justice. Its chief features, speaking of the United Kingdom generally, were a long spell of absolutely rainless weather, very few wet days, and one or two days of steady rain, yielding a total of about a quarter of the average.

Our best course will probably be to take one or two extracts from the *Meteorological Magazine* for July.* Taking (as in February) the mean of the 50 stations published, we have—

	Total Fall.	Percentage of average for June, 1870-79.
England	·70 in.	 28
Wales	·78 ,,	 28
Scotland	·79 ,,	 24
Ireland.....	·63 ,,	 17
Mean	·73 ,,	 24

"We may, perhaps, summarise by saying that the absolute drought of June appears to be unprecedented, and perhaps the smallness of the rainfall over the whole of the United Kingdom is the same, but that, taking the countries individually, we can find for each, at no distant date, months with a rainfall almost as small.'

In the South Western Counties, with an average annual rainfall varying from 30 inches to about 100 inches, the deficiency was exceptionally great, and probably the following list of stations, which report no measurable quantity of R in the whole of the calendar month, is one of the most remarkable tables in the annals of rainfall work :—

County.	Station.
Devon..... ..	Starcross, Powderham Castle.
,, ...	Rousdon Observatory (*Monthly g*).
,, ...	Exeter Institution.
,, ...	Hatherleigh, Winsford.
Cornwall	Probus, Lamellyn.
,, ...	Par Station, Penellick.
,, ...	Liskeard, St. Cleer.
,, ...	Bude.

Over nearly the whole of Yorkshire and parts of Lincoln and Suffolk the total was less than a tenth of the average.

JULY.

At the great majority of English stations the fall in this month was considerably less than half the average, though at many scattered over the country the total was increased by local summer rains.

In the higher districts of Scotland (and also at Seathwaite), the falls very nearly reached, or slightly exceeded, the average, but in the drier districts the deficiency was well marked.

In the N. and W. of Ireland, the departure from the average was not great, the plus and minus signs being about equal in value, but in the S. and E. drought still reigned, the fall at Dublin being less than half, and at Cork little more than half, the average.

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* See *Meteorological Magazine*, No. CCLVIII., July 1887, p. 82.

AUGUST.

August, as usual, with its TSS had an irregular rainfall, and many stations could be found with slightly more than the average fall, but probably a still greater number could be found with less than half the average, for the general drought still prevailed strongly.

The map very clearly exhibits the distribution. About, or less than, half the average, fell over a district comprising the S.W., Centre and N. of England, stretching well up into Scotland, and also over the greater part of Wales and the E. of Ireland.

SEPTEMBER.

The greater part of the kingdom rejoiced in an average rainfall this month, the map showing more plus signs than that for any other month, but it also exhibits the persistence with which the drought held over the Centre of England and in the S. and E. of Ireland.

OCTOBER.

Another month with plus signs conspicuous by their absence. The drought was, generally speaking, most marked at the Western and wetter stations of Great Britain, for of the stations used in these comparisons Manchester, Arncliffe, Seathwaite, Cargen, Old Cumnock and Kilmory, all show deficiencies of more than 50 per cent., while on the E. coast, Bury St. Edmunds, Cossey, Hull, N. Shields, Old Deer and Culloden, had falls more or less in excess. Ireland was uniformly dry, and its Centre and E. had less than half the average, while scarcely anywhere in the country did the fall exceed two-thirds of the average.

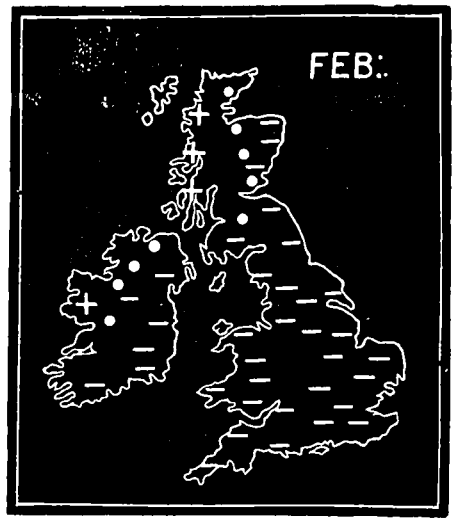
NOVEMBER.

The rainfall this month was probably sufficient for all purposes but water supply, for although the fall was less than the average over the greater part of the kingdom, the deficiency was, as a rule, not great, and November being a wet month, complaints are not generally loud if the fall is somewhat curtailed. Cork again had little more than half the average.

DECEMBER.

In England the only departure from the average worthy of note was the deficiency around the Wash, Norwich and Boston having less than half the average. In East Central Scotland, and in the S. and E. of Ireland, also, the deficiency was great, amounting to about 30 per cent. of the average.

MAPS OF MONTHLY RAINFALL IN 1887.



• Within an inch of average.

+ More than 1 in. above average.

— ,, ,, ,, below ,,

[*Between pp.* [158] & [159].

MAPS OF MONTHLY RAINFALL IN 1887.

• Within an inch of average.

\+ More than 1 in. above average.

— ,, ,, ,, below ,,

[*Between pp.* [158] & [159].

MONTHLY RAINFALL AT 233 STATIONS IN THE BRITISH ISLES DURING 1887.

ENGLAND.

Div.	County.	Station.	Jan	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
I.	Middlesex	London (Camden Sq.)	1·26	·48	1·65	1·41	1·45	·91	1·07	3·15	1·81	1·24	3·40	1·38	19·21
,,	,,	Uxbridge (Harefield)	2·74	·67	1·55	1·43	1·33	1·05	·91	1·94	2·62	1·56	3·65	1·42	20·87
II.	Surrey	Guildford (Guildown)	2·43	·66	1·69	1·87	1·64	1·34	·76	2·27	2·96	1·35	4·41	1·78	23·16
,,	Kent	Tenterden	1·86	·72	1·74	1·75	1·66	·67	·71	3·32	2·60	1·70	4·61	2·55	23·89
,,	,,	Hythe	1·73	·43	1·73	2·52	1·93	·66	·50	2·91	3·49	1·82	4·34	3·01	25·07
,,	,,	Sevenoaks (River Hill)	1·86	·51	1·46	1·78	1·80	1·08	·72	2·49	2·58	1·50	4·30	1·77	21·85
,,	,,	Ospringe (Lorenden)	1·82	·52	2·06	2·08	1·96	1·25	·75	2·50	2·81	2·05	5·25	1·92	24·97
,,	Sussex	Worthing (Heene)	2·58	·81	1·05	1·34	·88	·78	·73	2·25	2·73	·93	5·00	2·20	21·28
,,	,,	Maresfield (Forest Lodge)	2·85	·69	1·74	1·53	1·72	·93	·66	2·85	3·30	1·52	5·62	2·56	25·97
,,	Hants	I. of Wight (Sandown)	2·92	1·03	·92	1·09	1·08	·89	1·05	2·21	3·29	1·19	4·16	3·49	23·32
,,	,,	Bps. Waltham (Swanmore)	3·71	1·04	1·53	1·56	1·32	1·22	·99	2·16	3·14	1·29	4·62	1·97	24·55
,,	,,	Basingstoke (Sherborne)	2·81	·80	2·02	1·28	1·58	1·42	·99	1·82	2·47	1·35	4·32	2·09	22·95
,,	Berks	Newbury (Welford)	3·65	·70	2·48	1·43	1·83	1·31	1·18	1·24	2·97	1·94	3·66	1·97	24·36
III.	Herts	Hertford (Bayfordbury)	1·53	·70	1·69	·90	2·68	·71	·78	1·52	2·84	1·44	2·82	1·45	19·06
,,	,,	Royston	1·54	·66	1·33	1·17	2·41	·42	·62	1·14	2·48	1·92	2·91	1·23	17·83
,,	Bucks	Greenlands [Henley-on-Thames]	2·75	1·14	1·43	1·44	1·56	1·02	·87	1·20	2·82	1·55	2·96	2·00	20·74
,,	,,	Buckingham (Adstock)	2·56	·67	1·69	1·30	2·26	1·28	·77	1·08	2·13	1·40	2·66	1·13	18·93
,,	Oxford	Oxford (Magdalen Coll.)	2·16	·67	1·58	1·11	1·59	1·56	·71	2·19	2·10	1·96	1·85	1·37	18·85
,,	Northampton	Wellingborough (Swanspool)	3·36	·65	1·42	1·40	1·95	1·21	·97	1·10	2·02	2·01	2·18	1·27	19·54
,,	Bedford	Bedford	1·54	·54	1·32	1·00	2·15	1·00	·67	1·20	1·90	1·37	1·87	·97	15·53
,,	Cambridge	Ely (Stretham)	1·00	·54	1·55	·91	1·77	·53	·67	1·15	1·77	1·92	1·98	·84	14·63
,,	,,	Wisbech	1·94	·69	1·46	1·20	1·60	·35	·88	2·30	2·15	2·03	1·64	·91	17·15
IV.	Essex	Epping (The Hemnalls)	1·56	·86	2·02	1·43	2·26	·67	1·13	1·66	3·70	1·83	4·56	1·60	23·28
,,	,,	Chelmsford	1·17	·49	1·16	1·19	1·32	·44	1·27	1·60	1·95	1·34	3·80	1·26	16·99
,,	,,	Braintree (Bocking Place)	1·56	·52	1·47	1·63	1·96	·41	·74	1·94	2·40	1·70	3·60	1·24	19·17
,,	Suffolk	Haverhill (Great Thurlow)	2·22	·61	1·19	1·24	1·66	·55	·46	1·45	2·23	1·57	2·36	1·21	16·75
,,	,,	Ipswich	1·50	·51	1·50	1·33	1·76	·44	1·47	1·25	2·28	2·78	3·40	1·24	19·46
,,	,,	Weybread Vic. [Harleston]	1·29	·49	1·34	1·37	1·89	·08	·96	1·59	2·03	2·20	2·15	1·00	16·39
,,	Norfolk	Geldeston [Beccles]	1·63	·54	1·60	1·00	1·68	·16	2·04	1·36	1·92	2·75	2·18	1·27	18·13
,,	,,	Swaffham	1·79	·64	2·01	1·29	1·96	·15	1·15	2·40	2·57	3·45	2·34	1·43	21·18
,,	,,	Holt	1·34	·61	2·00	·87	2·05	·47	·96	3·18	2·37	3·23	2·42	1·57	21·07

ENGLAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August	Sept.	Oct.	Nov.	Dec.	Total.
V.	Wilts	Salisbury	3·58	·71	1·39	1·13	1·39	·96	·67	1·26	2·23	1·33	3·66	1·83	20·14
,,	,,	Trowbridge(Steeple Ashton)	2·14	·50	1·87	1·33	1·47	1·32	1·26	1·80	2·31	2·54	2·96	1·79	21·29
,,	,,	Marlborough	3·50	·79	2·33	1·04	1·55	1·50	1·10	1·80	2·61	2·07	3·24	2·21	23·74
,,	Dorset	Weymouth (Osmington)	3·57	·74	1·35	·91	1·73	·54	·77	2·08	2·76	2·75	4·70	2·72	24·62
,,	,,	Wimborne (Chalbury)	3·33	·72	1·28	1·27	1·96	·87	·77	1·90	2·83	1·80	2·94	2·79	22·46
,,	,,	Shaftesbury	3·15	·75	1·81	1·21	2·32	1·25	·64	3·06	2·29	1·75	3·77	2·70	24·70
,,	Devon	Totness	3·12	1·27	2·37	1·80	2·19	·53	1·72	1·57	3·07	3·01	7·12	4·72	32·49
,,	,,	Walkhampton (Lowery)	4·95	2·35	3·10	2·55	2·30	·50	3·25	1·50	5·20	4·95	5·05	4·40	40·10
,,	,,	Ilsington (Middlecott Ho.)	5·39	·91	2·38	1·23	1·80	·08	1·72	3·36	2·71	4·53	4·23	4·84	33·18
,,	,,	Cullompton (Bradninch)	2·99	·28	1·68	1·08	1·79	·11	1·03	1·47	3·00	4·28	3·20	3·56	24·47
,,	,,	South Molton (Rose Ash)	2·91	·74	1·44	1·63	1·22	·86	1·00	1·56	4·10	2·83	4·93	3·43	26·65
,,	Cornwall	Penzance	3·58	·82	1·47	·96	1·46	·10	1·22	1·57	3·52	3·58	3·74	3·95	25·97
,,	,,	St. Agnes	2·82	·75	1·74	·96	1·28	·05	1·17	1·66	3·61	4·13	4·22	3·21	25·60
,,	,,	Bude	2·70	·71	1·40	1·03	1·18	·00	·91	1·42	5·36	3·36	3·57	2·84	24·48
,,	Somerset	Ilminster	3·03	·50	1·64	1·32	2·37	·42	1·09	1·10	2·65	3·18	3·39	2·45	23·14
,,	,,	Glastonbury (Street)	2·79	·52	2·12	1·34	1·75	·94	1·61	·90	2·58	3·46	3·30	2·53	23·84
,,	,,	Exford Rectory	4·16	1·45	2·99	2·65	2·54	·23	1·83	2·80	6·20	4·63	6·88	5·06	41·42
VI.	Gloucester	Clifton	2·27	·70	2·38	1·96	2·34	1·00	1·12	2·94	3·42	2·48	2·77	2·41	25·79
,,	,,	Stroud (Upfield)	3·03	·74	1·44	1·65	1·89	1·14	·88	1·60	2·89	2·61	2·88	1·88	22·63
,,	,,	Fairford (Hatherop Rec)	2·42	·61	1·58	1·36	1·40	1·35	·95	1·24	2·67	2·34	2·61	1·75	20·28
,,	Hereford	Ross (The Graig)	2·73	·40	1·50	1·21	2·37	·95	1·68	1·95	2·50	2·28	3·00	2·00	22·57
,,	Salop	Ch. Stretton (Woolstaston)	1·98	·56	1·62	1·22	2·42	1·17	1·29	2·34	2·35	2·79	2·82	2·93	23·49
,,	,,	Much Wenlock (Willey Pk.)	2·89	·46	1·99	1·03	2·26	1·52	1·93	1·92	2·41	2·44	2·02	1·84	22·71
,,	,,	Oswestry (Hengoed)	2·15	·82	1·72	1·21	2·20	1·14	1·82	3·40	2·74	2·89	1·98	2·98	25·05
,,	Stafford	Lichfield Museum	3·05	·53	2·10	1·16	2·14	2·46	1·76	1·57	3·23	2·24	1·66	2·11	24·01
,,	,,	Burton (Shobnall)	2·15	·53	1·05	1·22	1·40	1·36	1·44	1·74	1·84	1·94	1·34	1·18	17·19
,,	,,	Etruria	2·60	·88	1·66	·75	1·84	1·44	1·35	1·63	3·06	2·59	1·47	2·26	21·53
,,	Worcester	Blockley	3·00	3·94	1·90	1·12	2·30	1·60	·53	2·15	2·73	1·40	2·75	2·05	25·47
,,	,,	Malvern	3·00	·42	1·06	1·06	2·10	1·49	·95	1·20	·99	2·10	2·62	1·74	18·73
,,	,,	Tenbury (Orleton)	2·97	·44	1·37	·76	2·20	1·36	1·53	1·88	1·60	1·92	2·61	2·43	21·07
,,	,,	Stourbridge (Longlands)	3·31	1·00	1·46	·99	1·90	1·62	·91	1·94	2·72	2·33	2·23	1·82	22·23
,,	Warwick	Leamington(Upper Parade)	2·62	·44	1·08	1·21	1·36	1·52	·95	1·53	1·93	2·00	1·54	1·32	17·50
,,	,,	Willey Rectory	3·25	·60	1·76	1·32	2·10	1·56	·73	1·15	2·88	2·25	2·29	1·64	21·53
VII.	Leicester	Loughborough	2·44	·56	1·55	1·40	1·49	1·68	·89	1·27	2·29	1·66	1·82	1·43	18·48
,,	,,	Harston [Grantham]	2·29	·59	1·10	1·05	1·89	·57	1·01	1·43	2·70	1·51	1·95	1·15	17·24

ENGLAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
VII.	Rutland	Market Overton	2·33	·69	1·41	1·05	1·97	·67	·78	·87	2·39	2·07	2·33	1·22	17·78
,,	Lincoln	Horncastle	1·65	·69	1·04	1·48	1·03	·16	·80	2·06	2·47	2·12	2·62	1·44	17·56
,,	,,	Brigg (Appleby Vic.)	1·63	·39	1·24	1·22	1·40	·04	1·44	1·46	2·51	2·06	1·60	·97	15·96
,,	Notts	Ollerton(ThoresbyGardens)	2·65	·91	1·23	1·43	1·83	·27	2·87	1·71	2·56	2·07	2·13	1·55	21·21
,,	Derby	Buxton	4·19	1·15	2·59	1·04	3·93	·55	1·44	2·51	5·18	2·56	2·96	4·28	32·38
VIII.	Cheshire	Congleton(BuglawtonVic.)	2·76	·53	1·32	·61	1·50	1·40	1·03	1·06	3·76	2·24	1·35	2·28	19·84
,,	Lancashire	Manchester (Withington)	1·97	·40	1·54	1·69	2·40	1·15	·76	1·72	3·55	2·12	·93	2·41	20·64
,,	,,	Ormskirk (Rufford)	3·12	1·11	1·79	1·35	1·83	·96	1·18	1·60	3·46	2·06	1·16	2·38	22·00
,,	,,	Burnley (Swinden, Lower)	3·25	1·30	2·18	1·53	2·45	·47	2·82	1·73	5·66	3·04	3·43	3·13	30·99
,,	,,	St. Michael's-on-Wyre	3·09	2·34	2·27	1·20	1·52	·67	2·29	2·06	4·31	2·53	2·85	2·81	27·94
,,	,,	Grange (Nutwood)	2·99	2·16	2·05	2·07	1·73	·42	1·75	2·44	4·03	2·24	2·71	3·27	27·86
IX.	York, W.R.	Rotherham	1·84	·67	1·40	1·05	1·74	·26	1·89	1·59	1·89	2·19	1·58	1·28	17·38
,,	,,	Huddersfield (Dalton)	1·76	·63	1·59	·97	2·00	·26	1·35	1·67	2·61	2·67	1·83	2·15	19·49
,,	,,	Leeds (Methley Park)	2·18	·68	1·37	·55	1·96	·10	·76	1·84	2·26	2·32	1·74	1·43	17·19
,,	,,	Malham Tarn	4·96	2·10	2·71	2·14	2·89	·32	2·98	3·28	7·70	3·36	4·35	4·51	41·30
,,	,,	Ripon (Mickley)	2·08	1·69	1·74	1·10	2·46	·23	1·22	1·59	3·77	3·36	2·70	2·47	24·41
,,	York, E.R.	Patrington	1·42	·47	1·05	1·00	1·34	·13	·52	1·34	1·87	3·55	2·06	1·25	16·00
,,	,,	Brantinghamthorpe	1·83	·70	1·56	1·22	2·40	·00	1·68	1·75	3·07	2·71	2·41	1·30	20·63
,,	,,	Pocklington (Warter)	1·65	·52	1·56	·83	1·91	·09	1·36	1·53	3·05	2·65	2·32	1·63	19·10
,,	York, N.R.	Malton	1·86	·64	1·52	·99	1·74	·14	1·27	1·47	2·67	3·05	2·33	1·92	19·60
,,	,,	Robin Hood's Bay	3·43	·83	2·86	·94	2·49	·11	·49	1·90	3·66	3·06	3·12	3·68	26·57
,,	,,	Northallerton	1·88	·78	1·80	1·01	1·62	·26	·89	1·37	3·11	2·23	2·24	1·91	19·10
,,	,,	Lockwood Beck	2·23	·94	2·50	1·26	3·25	·21	1·43	2·70	5·00	4·79	4·07	4·18	32·56
X.	Durham	Darlington (South End)	1·69	·76	2·24	·79	1·83	·56	1·16	1·90	2·49	1·68	3·19	1·93	20·22
,,	,,	Hartlepool(HurworthBurn)	1·54	·66	2·07	1·10	2·06	·27	1·03	2·26	3·91	3·16	3·69	3·12	24·87
,,	,,	Wolsingham	1·83	1·27	2·31	1·19	2·23	·41	1·35	1·65	4·24	1·80	4·64	3·15	26·07
,,	Northumberland	Haltwhistle(UnthankHall)	1·89	1·48	2·41	1·54	1·50	·36	1·78	2·56	5·08	2·24	3·89	3·36	28·09
,,	,,	Morpeth (Meldon Park)	1·24	·63	2·14	1·01	2·12	·26	2·02	2·24	4·35	1·84	3·65	3·53	25·03
,,	,,	Alwinton (Biddleston)	1·89	1·21	2·33	1·29	2·39	·47	3·78	2·03	5·47	2·57	4·90	3·57	31·90
,,	,,	Howick Hall	1·45	·34	1·67	·83	1·60	·25	2·75	1·80	5·40	2·18	2·75	3·42	24·44
,,	Cumberland	Borrowdale (Seathwaite)	12·11	9·51	4·52	9·22	5·55	2·20	10·04	4·75	15·58	7·89	8·62	11·58	101·57
,,	,,	Scaleby Hall	1·97	1·26	2·13	2·31	1·40	·53	2·19	3·52	4·57	1·40	2·94	3·17	27·39
,,	Westmoreland	Kendal	3·97	2·64	1·96	3·01	1·55	·31	2·90	2·08	4·05	2·23	3·23	4·44	32·37
,,	,,	Kirkby Stephen	3·35	2·24	1·57	2·13	1·87	·20	1·85	1·93	4·26	1·44	3·59	3·77	28·20
,,	,,	Lowther Castle	3·29	1·99	1·97	1·85	1·69	·14	2·14	1·86	4·35	1·86	3·46	4·18	28·78

MONMOUTH, WALES AND THE ISLANDS.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XI.	Monmouth.....	Newport (Gold Tops)	2·96	1·19	2·42	2·18	2·46	·81	1·56	2·34	4·09	1·88	3·70	3·18	28·77
,,	,, ...	Abergavenny.....	3·83	1·91	1·40	1·07	2·22	·89	1·04	2·15	2·88	2·47	3·92	2·74	26·52
,,	Glamorgan.....	Cardiff Castle	2·98	1·35	2·68	1·45	2·10	·61	1·53	3·51	4·12	2·76	3·45	3·28	29·82
,,	,, ...	Ystalyfera (Tan-yr-allt) ...	4·77	2·57	3·76	2·48	3·00	·84	3·95	4·22	6·80	3·31	6·04	5·64	47·38
,,	Carmarthen	Carmarthen Asylum	4·77	1·50	2·36	1·26	1·73	·44	3·77	2·66	3·50	3·92	4·01	3·90	33·82
,,	,, ...	Llandovery	4·19	1·59	2·69	2·53	2·50	·36	3·26	2·61	3·76	2·91	4·95	4·62	35·97
,,	Pembroke	Stackpole Court	4·12	1·03	2·19	1·10	1·22	·96	2·33	1·44	2·37	2·85	4·40	3·90	27·91
,,	,, ...	Fishguard (Castle Hill) ...	5·77	1·20	1·87	1·26	2·07	·27	3·37	2·47	3·21	3·50	4·31	4·12	33·42
,,	Cardigan	Aberystwith (Cwmsymlog)	3·88	1·55	2·70	2·30	2·67	1·02	3·54	4·20	7·24	4·73	3·52	4·44	41·79
,,	Brecknock.....	Brecknock	2·46	1·26	1·87	1·48	3·20	·44	1·64	2·55	3·55	2·68	4·55	4·55	30·23
,,	Radnor	Llandrindod Wells	2·64	·85	1·70	1·26	2·26	·83	2·08	2·69	3·19	2·75	3·12	3·90	27·27
,,	,, ...	Rhayader (Nantgwillt) ...	4·95	1·84	4·15	2·50	3·50	·70	2·92	4·25	4·71	3·11	4·85	6·68	44·16
,,	Montgomery.....	Carno (Tybrith)	3·47	1·68	2·58	2·14	2·67	·95	1·99	3·97	4·62	3·07	3·68	5·55	36·37
,,	Flint	St Asaph (Nantllys)	3·38	·58	1·01	1·16	2·18	1·05	1·41	3·29	3·00	3·96	1·52	2·37	24·91
,,	Denbigh.....	Rosset (Trevalyn Hall) ...	2·81	·48	1·24	·80	1·99	1·61	1·87	2·60	2·60	2·86	1·12	2·13	22·11
,,	Merioneth	Trawsfynydd	3·95	3·38	3·12	2·98	3·60	1·14	4·66	2·79	7·75	4·04	4·70	6·19	48·30
,,	,, ...	Corwen (Rhug Gardens) ...	3·16	1·26	1·72	1·38	2·09	1·16	2·01	3·00	3·44	3·97	2·46	3·75	29·40
,,	Carnarvon.....	Port Madoc	4·62	2·38	2·88	1·96	2·91	1·27	4·21	2·38	5·14	4·80	4·07	4·85	41·47
,,	Anglesey	Llanerchymedd (Llwydiarth	4·21	·82	2·59	1·39	1·88	1·22	2·10	1·76	2·73	2·72	3·37	3·19	27·98
,,	Isle of Man	Douglas .....Esgob)	3·75	1·26	1·81	1·45	1·64	·57	2·33	1·06	3·17	2·82	3·94	3·18	26·98
,,	Jersey.....	St. Aubins (Noirmont)	2·77	·95	·87	2·34	1·97	·94	·42	1·94	1·61	3·38	5·43	3·92	26·54
,,	Guernsey	Villa Carey	2·62	·61	·89	1·59	1·48	·57	·75	2·16	2·56	2·43	7·12	3·10	25·88
		SCOTLAND.													
XII.	Wigton	Garliestown (Galloway House)	3·53	1·09	1·52	1·67	1·32	·41	3·04	1·33	4·64	1·23	3·86	3·65	27·29
,,	,, ...	Corsewall	4·07	1·87	2·22	2·49	2·00	·53	2·83	1·23	3·05	·99	2·34	1·50	25·12
,,	Kirkcudbright ...	Dalbeattie(Colvend Manse)	2·36	1·96	1·32	2·07	1·10	·54	3·78	1·62	4·77	2·54	1·30	4·48	27·84
,,	,, ...	New Galloway (Glenlee)...	6·88	3·11	1·71	3·52	1·70	·74	6·16	3·64	5·70	2·50	4·91	7·13	47·70
,,	Dumfries	Moffat (Ericstane)	4·35	3·45	1·20	2·40	1·43	·90	4·35	2·40	3·50	1·90	5·10	6·20	37·18
,,	Roxburgh	New Castleton (The Flatt).	2·70	1·40	1·40	2·50	·90	·00	5·00	3·30	5·40	1·50	4·10	4·30	32·50
,,	,, ...	Hawick (Branxholme).....	2·54	1·47	1·80	1·14	·79	·55	3·20	1·89	4·08	1·30	4·32	2·61	25·69
,,	,, ...	Jedburgh	1·68	·41	1·71	1·00	1·28	·35	2·67	1·70	4·87	1·42	2·91	2·27	22·27
XIII.	Peebles	Glenrath	2·71	3·09	2·66	2·41	1·52	1·99	2·67	2·03	4·97	1·69	6·57	4·22	36·53
,,	,, ...	N. Esk Res. [Penicuick]...	1·40	2·80	1·95	1·60	2·35	·70	3·00	4·05	5·70	2·55	5·75	2·50	34·35

SCOTLAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XIII.	Berwick	Marchmont House	1·88	·57	2·41	1·18	2·62	·62	2·21	2·59	4·36	1·85	4·35	2·36	27·00
,,	Haddington	East Linton	·92	·44	1·74	·94	1·68	·62	2·72	1·24	3·79	1·36	5·00	1·15	21·60
,,	Edinburgh	Edinburgh (Charlotte Sq.)	·60	·93	1·50	1·00	1·70	·29	1·80	1·69	4·21	1·33	3·35	1·10	19·50
,,	Linlithgow	Uphall	1·65	1·58	2·40	1·37	1·29	·47	2·39	2·46	4·45	1·83	3·55	1·86	25·30
XIV.	Lanark	Biggar (Wiston)	3·50	2·00	1·00	1·90	1·20	·90	4·00	2·00	4·50	2·50	5·10	4·60	33·20
,,	,,	Cambuslang	2·02	2·61	1·89	1·98	1·27	·62	2·53	3·25	3·81	1·60	2·16	2·82	26·56
,,	Ayr	Colmonell	5·49	1·90	1·63	3·35	2·57	1·00	3·69	2·52	5·20	2·87	2·98	5·50	38·70
,,	,,	Ayr (Auchinlee)	2·35	1·95	1·68	2·23	1·78	·60	2·48	1·87	3·61	1·70	2·82	2·80	25·87
,,	,,	Kilmarnock (North Craig)	2·65	2·37	2·14	2·85	1·83	1·08	2·72	2·58	3·72	1·34	1·50	2·69	27·47
XV.	Dumbarton	Arrochar	8·70	2·30	3·85	2·80	1·50	2·50	7·17	4·15	3·45	3·30	6·30	4·43	50·45
,,	Stirling	Killearn	5·62	4·78	2·23	3·29	·47	1·10	3·41	4·15	3·65	2·40	6·22	5·09	42·41
,,	Bute	Arran (Pladda)	2·82	2·25	1·75	2·97	2·33	1·36	2·47	3·64	3·59	1·15	1·86	2·86	29·05
,,	Argyll	Holy Loch (Rosmor)	6·66	7·92	3·56	3·71	1·54	1·70	5·02	4·79	5·88	2·97	4·92	6·45	55·12
,,	,,	Lochgilphead (Kilmory)	5·49	5·57	3·54	2·93	1·61	1·74	3·72	5·48	4·83	3·11	4·34	6·23	48·59
,,	,,	Appin (Airds)	5·36	5·50	2·94	2·75	1·36	2·90	4·80	3·73	2·50	3·30	6·60	5·21	46·95
,,	,,	Strontian (Laudale)	11·27	8·11	2·97	4·54	2·41	3·23	5·35	3·71	4·14	6·13	6·13	8·97	66·96
,,	,,	Cantire (Devaar)	2·35	2·24	1·07	2·22	1·21	1·05	1·34	1·42	3·29	1·29	3·51	4·42	25·41
,,	,,	Islay (Eallabus)	4·13	3·70	2·57	2·55	1·96	1·18	3·71	3·02	4·12	3·23	3·61	5·00	38·78
,,	,,	Jura (Fladda)	6·90	6·70	4·40	4·40	1·00	2·10	5·25	2·80	4·40	2·35	5·15	4·90	50·35
,,	,,	Tyree (Hynish)	6 74	4·16	2·54	2·85	1·60	·90	5·82	1·35	3·17	2·45	4·31	5·58	41·47
XVI.	Clackmannan	Tillicoultry	2·36	2·34	1·71	2·40	1·42	·77	2·69	4·08	2·85	1·35	3·72	2·39	28·08
,,	Fife	Kilconquhar (Balcarres)	2·25	1·65	1·75	2·40	1·50	·70	3·00	2·60	4·00	1·50	5·00	1·50	27·85
,,	,,	Strathmiglo (Loden Urquht)	2·44	1·99	1·36	1·81	1·08	·76	1·49	2·95	4·48	1·23	4·54	1·78	25·91
,,	Perth	Stronvar	9·53	8·93	2·57	2·28	·69	1·88	4·60	4·63	5·10	3·62	6·57	6·17	56·57
,,	,,	Dunkeld (Inver Braan)	3·54	2·30	1·45	1·89	·42	·50	2·08	3·22	3·76	·69	2·42	2·27	24·54
,,	,,	Dalnaspidal H.R.S.	7·10	7·49	2·72	2·37	1·13	1·17	3·61	3·44	4·64	3·73	5·79	4·32	47·51
,,	Forfar	Dundee (Broughty Ferry)	1·67	·88	·90	2·00	·84	·60	2·27	2·84	3·50	·81	4·16	1·16	21·63
,,	,,	Kirriemuir (Lintrathen)	2·82	2·07	1·06	2·66	·50	·53	2·79	2·77	2·42	·97	2·41	2·25	23·25
XVII.	Kincardine	The Burn	2·40	1·50	1·60	1·80	·90	·70	2·00	2·30	2·10	1·50	2·90	2·70	22·40
,,	Aberdeen	Coldstone Manse	1·14	·76	2·42	1·70	1·25	·80	1·74	1·63	3·47	2·44	2·69	2·34	22·38
,,	,,	Inverury (Manor Farm)	1·78	·61	2·04	2·36	1·47	·42	·95	2·63	2·81	2·83	2·93	3·12	23·95
,,	,,	Old Deer	2·20	·97	1·81	2·66	1·15	·64	2·10	2·10	3·34	3·78	3·12	4·00	27·87
,,	Moray	Grantown	·89	1·57	1·96	1·39	2·33	·39	1·78	2·38	3·90	3·00	2·06	3·11	24·76
,,	,,	Gordon Castle	1·32	·63	1·34	2·21	1·94	·59	1·60	1·79	3·72	3·84	2·95	2·91	24·84
,,	,,	Elgin	1·25	·84	1·77	2·40	1·95	·48	2·28	2·39	4·43	2·55	2·82	2·20	25·36

SCOTLAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XVIII.	Ross	Strome Ferry H.R.S.	7·31	6·37	2 96	3·94	2·96	2·26	4·75	4·20	3·89	5·84	3·58	6·73	54·79
,,	,, ...	Strathconan	4·99	4·57	2·60	2·25	1·90	1·03	3·17	3·06	6·20	2·37	4·18	5·36	41·68
,,	,, ...	Braemore House	6·72	4·76	2·99	5·05	3·67	·35	4·12	7·25	4·38	4·59	7·96	3·09	54·93
,,	,, ...	Ardross Castle	2·89	2·78	1·72	2·08	·70	·64	2·37	3·01	2·54	2·77	2·42	3·05	26·97
,,	Inverness	Fort William	11·81	11·43	3·58	3·54	1·86	3·33	7·88	3·23	4·67	5·75	5·39	8·31	70·78
,,	,, ...	N. Uist (Loch Maddy) ...	11·58	4·80	1·45	3·00	1·25	2·64	3·67	2·31	2·59	3·92	3·85	4·44	45·50
,,	,, ...	Invergarry	10·14	10·35	2·72	1·90	1·31	1·35	6·03	2·40	3·78	5·26	5·24	3·95	54·43
,,	,, ...	Aviemore H.R.S.	1·45	2·67	2·28	1·20	1·97	·68	2·21	1·99	2·58	2·64	2·84	1·83	24·34
,,	,, ...	Inverness H.R.S.	1·23	2·42	·98	1·33	·74	·42	2·56	2·08	3·24	1·70	1·50	1·92	20·12
XIX.	Sutherland	Invershin	3·14	1·11	2·06	3·96	2·16	·19	1·07	3·87	3·24	2·14	3·92	1·75	28·61
,,	,, ...	Scourie	4·02	3·87	2·32	3·76	·83	2·13	3·73	4·43	4·99	5·63	2·70	5·52	43·93
,,	,, ...	Forsinard H.R.S.....	4·46	1·88	1·04	1·83	·80	·95	2·25	2·65	3·50	3·44	3·61	3·69	30·10
,,	Caithness	Wick H.R.S.	2·61	1·53	·48	1·84	1·05	1·03	4·22	1·65	2·19	2·17	2·64	4·82	26·23
,,	Shetland	Sumburghead(Dunroseness)	4·14	3·61	1·42	1·72	1·47	1·52	2·84	2·51	3·13	2·65	3·12	3·97	32·10
		IRELAND.													
XX.	Cork	Dunmanway (Coolkelure) .	8·85	3·67	3·63	2·38	1·93	1·11	3·71	3·28	3·48	4·76	4·48	7·16	48·44
,,	,, ...	Cork (Blackrock)	4·57	1·32	1·96	·93	·95	·53	1·45	2·12	2·52	2·69	2·52	3·27	24·83
,,	,, ...	Ballyhooly (Wood Cottage)	6·67	1·80	1·71	1·51	1·38	·50	1·87	2·40	3·03	3·46	2·52	4·17	31·02
,,	Kerry	Kenmare (Derreen)	10·34	3·58	2·20	2·74	·44	1·00	4·35	3·74	3·82	3·77	5·52	5·79	47·29
,,	,, ...	Dromore Castle.....	7·63	2·33	2·38	2·48	2·02	·69	2·79	3·58	4·30	4·28	3·62	6·30	42·40
,,	Waterford	Waterford (Brook Lodge) .	4·57	·59	1·82	1·07	·89	·48	2·40	2·68	1·72	1·74	2·79	2·58	23·33
,,	Tipperary	Tipperary, (Henry Street)	4·34	·94	1·51	1·54	1·29	·25	1·61	2·09	2·52	2·26	2·25	3·41	24·01
,,	,, ...	Nenagh (Castle Lough) ...	4·29	1·77	1·52	2·19	1·27	·17	2·28	3·06	2·81	2·29	3·52	3·94	29·11
,,	,, ...	Ballingarry (Hazelfort) ...	2·79	1·09	1·22	2·03	1·15	·20	1·89	2·38	2·67	2·67	2·10	2·44	22·63
,,	Limerick	Jane Ville	4·77	1·35	1·40	1·55	1·44	·20	1·62	2·08	2·50	3·04	2·71	3·27	25·93
,,	,, ...	Foynes	3·91	1·62	1·56	2·28	1·12	·36	1·93	3·05	4·19	2·19	3·10	3·76	29·07
,,	Clare	Ennis.....	3·38	2·29	1·52	1·51	1·39	·35	1·98	3·28	4·87	1·94	2·77	4·11	29·39
,,	,, ...	Miltown Malbay	4·21	2·61	1·10	1·97	1·61	·43	3·43	4·04	6·25	3·97	3·59	4·46	37·67
XXI.	Wexford	Ballyhyland	4·66	·86	1·76	1·82	1·36	·25	2·92	3·11	1·85	2·00	4·35	2·39	27·33
,,	,, ...	Gorey (Courtown).....	3·71	·72	1·85	1·01	·95	·19	1·68	2·36	2·50	1·58	3·80	2·56	22·91
,,	Kilkenny	Rosbercon Castle	4·13	·57	1·46	·91	1·67	·31	1·64	1·82	1·57	1·67	3·18	1·75	20·68
,,	,, ...	Kilkenny (Lavistown)	2·81	·81	1·25	1·41	·79	·14	1·46	2·35	1·98	1·83	1·80	1·96	18·59
,,	Wicklow	Bray (Fassaroe)	3·95	1·20	2·42	1·52	1·76	·29	1·48	4·23	1·79	2·64	5·57	2·53	29·38
,,	Carlow	Browne's Hill	3·23	·85	1·23	1·59	1·10	·26	1·69	3·21	2·07	1·91	3·20	2·14	22·49

IRELAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XXI.	Queen's Co.	Abbey Leix (Blandsfort)...	3·16	1·15	1·37	2·02	1·19	·15	2·08	4·42	2·37	2·40	2·22	2·06	24·59
,,	Kildare	Straffan House.....	2·60	·80	1·32	1·75	1·12	·22	1·00	1·74	1·80	1·45	3·61	1·78	19·19
,,	Dublin	Glasnevin(BotanicGardens)	1·38	·48	1·34	1·08	·79	·27	·83	1·59	1·74	1·16	2·43	·95	14·04
,,	Meath	Trim	2·50	1·07	1·25	1·29	2·92	·23	1·50	1·94	1·13	1·68	5·02	2·31	22·84
,,	,, ...	Moynalty (Westland)	3·25	1·49	1·20	1·93	1·39	·21	3·55	2·68	2·57	1·27	5·02	2·46	27·02
,,	Westmeath	Mullingar (Belvedere).....	2·80	1·36	1·12	1·35	1·46	·21	3·21	1·94	2·87	2·75	3·91	2·45	25·43
,,	,, ...	Athlone (Twyford)	3·00	1·36	1·57	2·23	1·46	·32	3·72	2·88	3·34	2·46	3·09	2·57	28·00
,,	Louth	Stephenstown	2·32	1·01	1·30	1·00	1·30	·70	2·82	2·57	2·34	1·26	2·13	2·43	21·18
,,	,, ...	Greenore	2·52	·73	1·24	·81	1·51	·60	2·99	2·36	2·99	2·23	2·69	2·24	22·91
,,	Longford	Edgeworthstown	2·79	2·43	1·16	1·55	1·58	·17	3·06	2·48	3·09	1·78	3·30	2·61	26·00
XXII.	Galway	Ballinasloe	2·96	1·62	1·28	1·64	1·89	·42	2·60	2·49	2·99	2·88	3·12	2·72	26·61
,,	,, ...	Kylemore	7·94	3·73	1·58	3·76	2·51	1·39	6·45	7·60	5·32	5·39	6·22	6·44	58·33
,,	,, ...	Tuam	3·90	3·96	1·39	2·39	1·92	·52	3·59	4·54	5·54	2·79	4·12	4·41	39·07
,,	Mayo	Ballinrobe (Cranmore) ...	5·19	4·60	1·27	2·36	1·83	·82	3·23	5·08	5·39	3·48	4·21	5·27	42·73
,,	,, ...	Westport (Oldhead).....	6·30	4·10	2·10	3·10	1·60	·30	4·70	5·00	4·10	4·20	4·60	3·80	43·90
,,	,, ...	Crossmolina (Enniscoe) ...	5·11	5·36	1·88	2·78	2·17	·59	3·83	4·74	5·69	4·36	5·37	5·80	47·68
,,	Sligo	Sligo (Mount Shannon) ...	3·12	3·02	1·88	2·60	1·75	·14	3·18	3·76	6·11	1·68	4·93	4·12	36·29
,,	Leitrim	Ballinamore (Lauderdale)..	3·03	2·61	1·65	1·49	2·16	·41	2·96	4·96	3·98	2·08	4·23	3·60	33·16
XXIII.	Cavan	Belturbet (Red Hills)	2·93	1·39	1·04	1·76	1·54	·13	2·83	2·91	2·44	1·19	3·26	3·08	24·50
,,	Fermanagh	Enniskillen (Florence Crt.)	3·22	3·96	·94	1·41	1·58	·29	4·07	5·01	4·03	2·39	3·30	5·09	35·29
,,	Monaghan.....	Rockcorry	2·43	1·36	1·12	1·41	1·55	·19	2·46	2·52	2·18	1·62	2·41	2·84	22·09
,,	Armagh.....	Armagh.....	2·13	1·38	1·01	1·46	1·32	·69	3·21	3·25	2·84	1·59	2·46	2·28	23·62
,,	Down.....	Newcastle (Fairleigh)	5·63	1·63	1·80	2·31	1·40	·87	3·99	2·50	3·00	1·36	3·03	3·49	31·01
,,	,, ...	Donaghadee	2·69	·76	1·27	2·04	1·45	·60	2·55	1·51	3·30	1·51	1·95	2·11	21·74
,,	Antrim	New Barnsley	3·03	1·45	1·56	2·27	2·71	·78	3·65	3·38	4·82	2·29	3·02	2·85	31·81
,,	,, ...	Ballymena.....	2·71	1·78	1·56	1·87	2·42	1·20	3·29	2·57	4·06	2·02	2·71	3·59	29·78
,,	,, ...	Bushmills (Dundarave) ...	2·18	1·67	1·91	2·19	2·78	1·12	2·26	2·43	4·28	2·62	3·24	3·63	30·31
,,	Londonderry.....	Newtown Limavady	1·50	1·83	1·37	1·56	2·13	·86	3·16	2·57	3·75	2·57	2·80	3·34	27·44
,,	Tyrone	Stewartstown (Ardtrea) ...	2·50	1·58	1·30	1·59	1·55	·96	2·76	2·51	2·98	1·81	2·46	3·46	25·46
,,	,, ...	Omagh (Edenfel)	2·74	2·17	1·22	2·64	1·96	·64	3·16	4·45	3·34	2·34	2·78	3·42	30·86
,,	Donegal.....	Castlefinn (Finn Lodge) ...	2·36	3·47	1·55	1·74	2·12	·46	3·19	3·11	3·82	3·12	2·90	3·69	31·53
,,	,, ...	Malin Head	2·07	3·96	2·37	1·46	1·79	1·28	3·64	3·41	3·28	2·32	2·41	3·54	31·53

ON THE RELATION OF THE TOTAL RAINFALL IN 1887 TO THE AVERAGE.

I HAVE worked up this subject in two quite different ways, and therefore take each separately.

THE RAINFALL OF 1887 AS COMPARED WITH THAT OF DRY YEARS SINCE 1726.

As frontispiece to *British Rainfall*, 1886, I gave a diagram representing, as nearly as practicable, the relative rainfall over England and Wales of every year from 1726 to 1886.

Space was left on the diagram for the insertion of the values for three subsequent years. I have worked out that for 1887 and find it is 69 per cent. The column headed 1887 should therefore be blackened nearly up to the level of the figure 70.

This is extremely low; there has been no year so low since 1788; and then we have to go back to the great dry period of the middle of the 18th century before we find another case. As I have often explained, I do not assume any responsibility for those old figures, but neither have I any evidence which contradicts them. Rainfall as small as, or smaller than that of 1887 seems to have occurred only in—

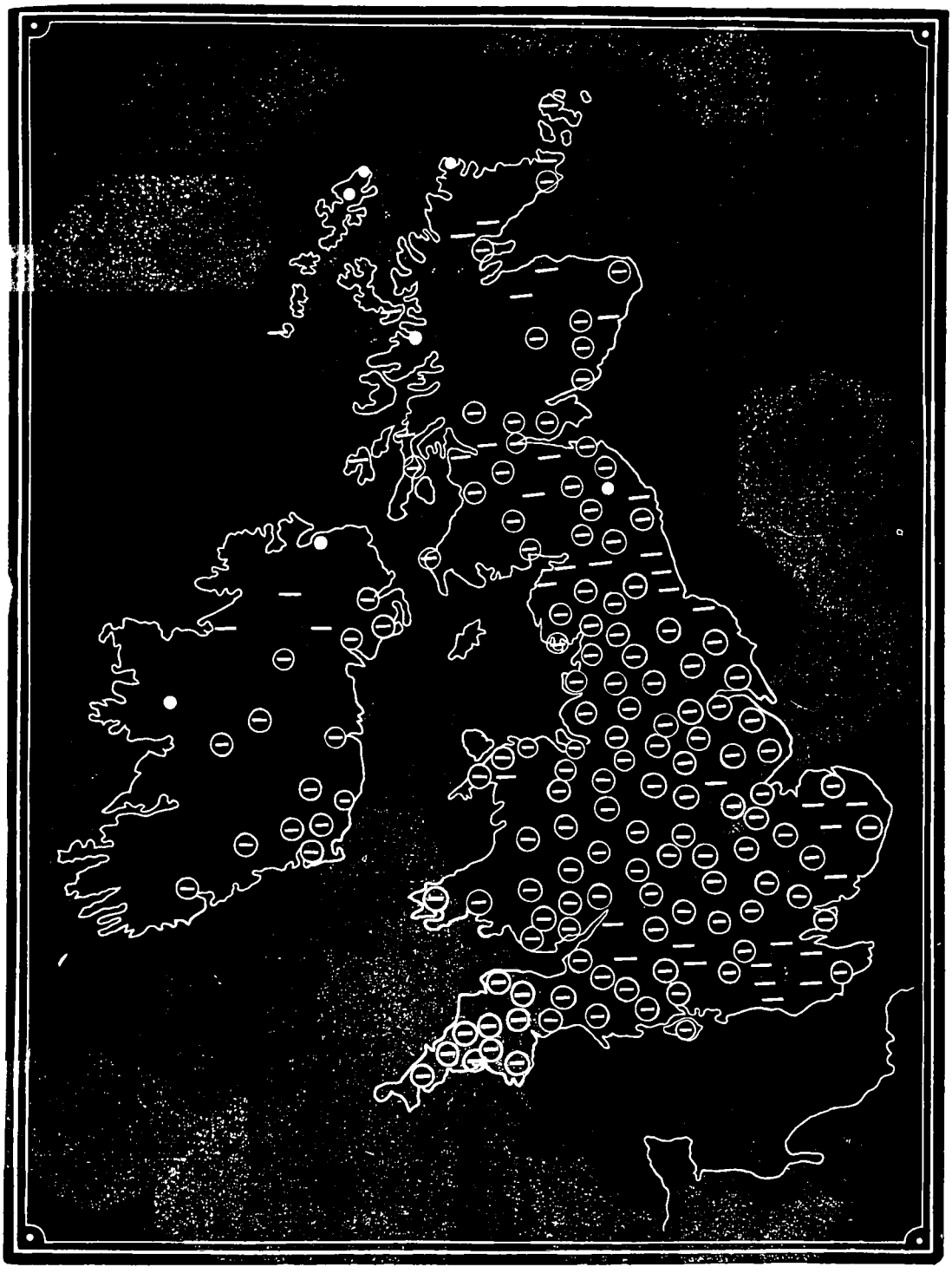
1740 = 65 per cent.	.....	1748 = 65 per cent.	
1741 = 58 ,,	.....	1749 = 59 ,,	
1742 = 65 ,,	.. ...	1750 = 61 ,,	
1743 = 60 ,,	.....	1788 = 65 ,,	

1887 = 69 per cent.

ANALYSIS OF THE USUAL COMPARISON TABLES.

These tables give very valuable information, not only as regards the relation of the rainfall of the year to the average, but also (especially when coupled with an examination of the accompanying map) as to the areas where excess or defect have prevailed. This year there is no excess, and therefore all that we have to look to is the amount of deficiency, and the localities which suffered most. In

DIFFERENCE OF TOTAL RAINFALL IN 1887 FROM THE AVERAGE OF 1870-79.



The round dot indicates a rainfall within 10 per cent. of the average.
The + and — respectively show excess or defect of between 10 and 25 per cent.
The same signs enclosed by a ring indicate a departure from the average of more than 25 per cent.

the first place we give the usual abstract of the tables on pages [169] to [172].

ABSTRACT.

COUNTRIES.	No. of Records.	Mean 1860-69.	Mean 1870-79.	1887.	Diff. from Average 1870-79.	
					Amount.	Per cent.
		in.	in.	in.	in.	
England and Wales...	112	35·06	36·04	23·60	12·44 —	34
Scotland.....	31	38·80	40·82	29·14	11·68 —	28
Ireland	4	37·51	38·54	24·72	13·82 —	35
Mean of all Stations...	147	35·91	37·12	24·80	12·32 —	33

Excepting 1872, these are by far the most remarkable values with which I have had to deal since I began this publication in 1860. The Rainfall of the whole British Isles was, it appears, 33 per cent. below the average—or to put it in other words was *only two-thirds of the average*—1872 was 36 per cent. *above*, and 1877 was 25 per cent. above; no other years differed 20 per cent. from the average, either above or below it. As regards dryness, no year comes near 1887, whether we regard England alone or the whole of the British Isles. For England, the driest since 1860 have been 1870 —17 per cent., 1884 —20 per cent.; 1887 —34 per cent. For the British Isles, 1870 —18 per cent., 1884 —16 per cent.; 1887 —33 per cent.* If now we turn to the individual stations, and to the map, we find that the deficiency has been universal; but at a few places in the S.E. of England and the S.E. of Scotland it has not been excessive. In all other parts it has been very remarkable, and tolerably uniform, with the exception of three areas, where the deficiency has been quite exceptional: (1) Devon, Cornwall, part of South Wales and the South of Ireland; (2) An elliptical area, with Chester and Hull for the extremes of its major axis, and an extreme breadth of about 60 miles from N. to S. Within this area few stations had within 40 per cent. of their average, and some had less than half the usual fall; (3) Perthshire, especially the South West of the county.

It is very remarkable that the mean result obtained by the above utterly dissimilar investigations should agree so closely. I have

* The foregoing values are, to ensure strict comparability, all taken from the abstract tables similar to the above. They mostly agree well with the diagram for 160 years, but the diagram brings out 1864 strongly, while, as it was rather local, it does not appear here.

often pointed out that the 1870-79 average is rather too high, about 5 per cent. If we take the value for England in the foregoing abstract table (36·04 in.) and reduce it by 5 per cent., the deficiency for the year comes out 31 per cent. instead of 34, as in the abstract table. And a deficiency of 31 per cent. is of course the same as saying that the rainfall was 69 per cent. of the mean. Now, if the reader turns to the note as to the diagram 1726-86, he will find that 69 is the identical value given by that utterly different line of investigation. It *may* be a chance agreement, but it looks very much like strong corroboration.

We may here refer to the conclusion of the article on "Heavy Falls of Rain," on p. [147], where it will be seen that they indicated for the whole country a deficiency of 27 per cent. If now we turn to the Abstract Table which we have just given, and, as in the previous case, reduce the 1870-79 average for all stations by 5 per cent., we get a deficiency of 30 per cent., or within 3 per cent. the same as that given by the heavy falls. Whether, therefore, we take England alone, or the whole of the British Isles, all methods agree within 4 per cent.; we have 69, 69, 70 and 73 as the value for the year 1887 if the true mean for a long series of years be represented by 100.

THE RAINFALL OF 1887 COMPARED WITH THAT OF OTHER DRY YEARS.

I HAVE had prepared (but they are too voluminous to print) comparisons of the rainfall of 1887 with other dry years, *e.g.*, 1854, 1864, 1870, 1874 and 1884, and the result at first appeared difficult of reconcilement with other investigations, all which show that 1887 was an excessively dry year. These tables, on the other hand, show that at the majority of stations some other year of the last 40 has been drier. The explanation of this apparent contradiction is obvious—1887 has been dry *all over* the British Isles, whereas other dry years have been *locally* more intense.

For instance, in 1854 and 1864 the rainfall at most stations in the South and Centre of England was less than in 1887. In 1870 the rainfall in the South of Scotland was far less than in 1854, and less than in 1887. In Cornwall, Lancashire, most parts of Yorkshire, and in the South of Ireland. The fall in 1887 is, as far as I can trace, small beyond precedent during this century.

COMPARISON OF THE RAINFALL OF THE YEAR 1887, WITH THE AVERAGE OF THE YEARS 1870-79.

ENGLAND & WALES.

DIV.	COUNTY.	STATION.	Average.		Depth in 1887.	Difference from average, 1870-9.	
			1860-9.	1870-9.		Amount.	Per cent.
			in.	in.	in.	in.	
I.	Middlesex ...	London (Camden Square)	25·68	27·24	19·21	8·03	— 29
II.	Surrey	Seething Wells	26·55	25·73	18·29	7·44	— 29
,,	,, ...	Wimbledon	23·48	25·11	21·38	3·73	— 15
,,	,, ...	Kew Observatory	23·28	24·76	19·40	5·36	— 22
,,	Kent	Maidstone (Hunton Ct.)..	26·00	26·06	21·46	4·60	— 18
,,	,, ...	Greenwich (Royal Obser.)	25·18	25·39	19·86	5·53	— 22
,,	West Sussex.	Chichester (Chilgrove) ...	33·22	35·03	25·31	9·72	— 28
,,	East Sussex.	Lewes (Glynde Place) ...	33·65	33·75	25·47	8·28	— 25
,,	,, ...	Maresfield (Forest Lodge)	31·48	33·37	25·97	7·40	— 22
,,	Hampshire ..	Isle of Wight (Osborne).	30·73	29·21	22·30	6·91	— 24
,,	,, ...	Petersfield (Liss Place) ...	38·03	36·65	25·57	11·08	— 30
,,	Berkshire ...	Newbury (Welford)	28·97	31·92	24·36	7·56	— 24
III.	Herts	St. Albans (Gorhambury).	27·85	29·07	20·48	8·59	— 30
,,	,, ...	Hemelhempstead	26·39	28·66	20·44	8·22	— 29
,,	,, ...	Hertford (Bayfordbury)..	25·01	27·02	19·06	7·96	— 29
,,	,, ...	Tring (Cowroast)	27·59	30·62	21·55	9·07	— 30
,,	,, ...	Hitchin	23·92	25·67	18·70	6·97	— 27
,,	,, ...	Royston	23·57	23·74	17·83	5·91	— 25
,,	Northampton	Northampton (Althorp)..	23·35	26·93	18·92	8·01	— 30
,,	,,	Wellingborough	24·09	25·72	19·80	5·92	— 23
,,	Bedford	Cardington .....0 ft.	22·49	25·13	16·60	8·53	— 34
,,	,, ...	,, ... 3 ft.	21·76	23·69	15·92	7·77	— 33
,,	Cambridge...	Ely (Stretham)	20·61	23·11	14·63	8·48	— 37
IV.	Suffolk	Bury S. Edmund(Westley)	23·52	25·51	18·86	6·65	— 26
,,	,, ...	,, (Culford)	24·84	26·20	19·00	7·20	— 27
,,	,, ..	Carlton Colville	24·29	26·42	19·41	7·01	— 27
,,	Norfolk	Norwich (Costessey)	24·04	27·44	22·36	5·08	— 19
,,	,, ...	Hunstanton	19·56	23·26	18·81	4·45	— 19
V.	Wiltshire ...	Salisbury Plain(Chitterne)	29·28	30·53	21·66	8·87	— 29
,,	,, ...	Swindon (Pen Hill)	28·59	29·64	19·71	9·93	— 34
,,	Dorset	Cerne Abbas (Melbury)...	39·99	40·92	26·02	14·90	— 36
,,	Devon	Tavistock Public Library	43·36	52·52	31·46	21·06	— 40
,,	,, ...	Exeter (D. & E. Inst.) ...	31·76	34·69	22·18	12·51	— 36

ENGLAND & WALES.—*Continued.*

DIV.	COUNTY.	STATION.	Average.		Depth in 1887	Difference from average, 1870-9.	
			1860-9.	1870-9.		Amount.	Per cent.
			in.	in.	in.	in.	
V.	Devon	Barnstaple	39·91	42·43	29·43	13·00	— 31
,,	Cornwall ...	Penzance (South Parade).	41·51	46·80	25·97	20·83	— 45
,,	,, ...	Bodmin (Castle St.) 2½ ft.	47·71	52·01	32·04	19·97	— 38
,,	Somerset ...	Glastonbury (Street) 1 ft.	30·01	33·14	23·84	9·30	— 28
,,	,, ...	Sherborne Reservoir	42·10	47·26	29·90	17·36	— 37
VI.	Gloucester ...	Clifton	34·09	36·36	25·79	10·57	— 29
,,	Hereford ...	Ross (The Graig)	28·21	31·75	22·57	9·18	— 29
,,	Shropshire...	Oswestry (Hengoed)	35·65	39·55	25·05	14·50	— 37
,,	Worcester ...	Northwick Park..	28·02	32·34	22·99	9·35	— 29
,,	,, ...	Tenbury (Orleton)	30·90	33·26	21·07	12·19	— 37
VII.	Leicester ...	Thornton Reservoir	25·61	27·59	19·33	8·26	— 30
,,	,, ...	Loughborough(Cedar Cot)	27·67	29·54	18·48	11·06	— 37
,,	,, ...	Belvoir Castle.....	24·48	25·75	19·46	6·29	— 24
,,	Lincoln	Spalding (Pode Hole).....	25·34	24·82	15·13	9·69	— 39
,,	,, ...	Lincoln .....M.S.&L.R.	20·87	23·70	15·53	8·17	— 34
,,	,, ...	Gainsborough M.S.&L.R.	21·66	22·35	14·28	8·07	— 36
,,	,, ...	Stockwith ...M.S.&L.R.	21·35	23·20	15·57	7·63	— 33
,,	,, ...	Brigg .....M.S.&L.R.	24·12	23·31	13·18	10·13	— 43
,,	,, ...	Grimsby .....M.S.&L.R.	21·39	23·04	16·48	6·56	— 28
,,	,, ...	Barnetby .....M.S.&L.R.	22·16	25·17	15·40	9·77	— 39
,,	,, ...	Appleby Vicarage	24·10	26·64	15·96	10·68	— 40
,,	,, ...	New Holland M.S.&L.R.	22·66	25·29	14·94	10·35	— 41
,,	Nottingham.	Worksop .....M.S.&L.R.	22·47	25·63	15·26	10·37	— 40
,,	,, ...	Retford .....M.S.&L.R.	22·74	23·04	14·13	8·91	— 39
,,	Derby.....	Bretby [Burton].....	27·41	30·97	20·98	9·99	— 32
,,	,, ...	Chesterfield .. M.S.&L.R.	26·93	30·54	18·65	11·89	— 39
,,	,, ...	Combs Moss M.S.&L.R.	49·62	45·71	25·46	20·25	— 44
,,	,, ...	,, ReservoirM.S.&L.R.	50·01	45·67	21·78	23·89	— 52
,,	,, ...	Chapel-en-le-FrithMS&LR	41·95	42·56	21·66	20·90	— 49
,,	,, ..	Killamarsh ...M.S.&L.R.	24·59	26·79	17·99	8·80	— 33
,,	,, ...	WoodheadStationMS&LR	52·19	49·87	37·22	12·65	— 25
VIII.	Cheshire.. ...	Bosley Reservoir MS&LR	32·04	34·10	19·53	14·57	— 43
,,	,, ...	,, Minns M.S.&L.R.	32·85	33·90	22·08	11·82	— 35
,,	,, ...	Bollington (Spond's Hill)	37·46	35·52	18·97	16·55	— 47
,,	,, ...	Whaley .....M.S.&L.R.	43·89	43·38	24·32	19·06	— 44
,,	,, ...	MarpleTopLockM.S&L.R	35·25	35·94	21·85	14·09	— 39
,,	,, ...	,, Aqueduct MS&LR	34·81	33·73	19·25	14·48	— 43
,,	,, ...	Godley Reservoir	33·98	34·85	18·64	16·21	— 47
,,	,, ...	Newton .....M.S.&L.R.	31·63	29·30	15·04	14·26	— 49
,,	,, ...	Mottram (Matley's Field)	37·73	36·32	21·15	15·17	— 42
,,	,, ...	Arnfield Reservoir	37·23	41·38	22·15	19·23	— 46
,,	,, ...	Rhodes Wood Reservoir..	46·32	44·74	25·64	19·10	— 43
,	,, ..	Woodhead Reservoir	51·83	49·74	29·38	20·36	— 41
,,	Lancashire...	Denton Reservoir	32·97	33·78	18·57	15·21	— 45
,,	,, ...	Gorton Reservoir	33·71	34·14	18·48	15·66	— 46
,,	,, ...	Manchester (Ardwick) ..	32·60	36·72	21·26	15·46	— 42
,,	,, ...	,, (Piccadilly)MS&LR	36·78	34·72	18·75	15·97	— 46
,,	,, ...	,,(Fairfield)M.S.&L.R.	40·90	37·66	23·78	13·88	— 37
,,	,, ..	AshtonWaterhousesMSLR	36·13	39·24	22·62	16·62	— 42

ENGLAND & WALES.—*Continued.*

DIV.	COUNTY.	STATION.	Average.		Depth in 1887.	Difference from average, 1870-9.	
			1860-9.	1870-9.		Amount.	Per cent.
			in.	in.	in.	in.	
VIII.	Lancashire ..	Bolton (The Folds).....	48·98	47·23	27·92	19·31	— 41
,,	,, ...	,, (Heaton)1 ft. 3 in.	44·21	45·11	24·10	21·01	— 47
,,	,, ...	Ormskirk (Rufford)	35·00	36·65	22·00	14·65	— 40
,,	,, ...	Bolton (Belmont)	56·61	59·91	38·90	21·01	— 35
,,	,, ...	Heywood (Nayden Dane).	44·13	44·67	25·54	19·13	— 43
,,	,, ...	Blackburn (Guide Res.)..	41·30	44·49	26·05	18·44	— 41
,,	,, ...	Blackpool (South Shore).	32·99	34·43	24·53	9·90	— 29
,,	,, ...	Stonyhurst College...1 ft.	48·56	48·74	31·19	17·55	— 36
,,	,, ...	Clitheroe (DownhamHall)	44·79	43·40	30·38	13·02	— 30
,,	,, ...	Cartmel (Holker)	45·63	45·13	28·28	16·85	— 37
IX.	Yorks, W.R.	Sheffield (Redmires)	39·68	42·80	24·78	18·02	— 42
,,	,, ...	,, (Broomhall Pk.)	31·28	32·67	18·49	14·18	— 43
,,	,, ...	Dunford Bridge Station..	56·18	52·51	26·81	25·70	— 49
,,	,, ...	Penistone.....	30·57	34·37	21·46	12·91	— 38
,,	,, ...	Halifax (Midgely Moor)..	50·00	48·07	30·17	17·90	— 37
,,	,, ...	,, (Warley)	46·33	45·27	30·22	15·05	— 33
,,	,, ...	Leeds (Holbeck)	22·85	25·02	14·91	10·11	— 40
,,	,, ...	Arncliffe	60·07	60·95	42·36	18·59	— 31
,,	,, N.R...	Malton.....	27·46	28·44	19·60	8·84	— 31
X.	North'mblnd	N. Shields (Rosella Place)	26·06	28·02	23·92	4·10	— 15
,,	,, ...	Whittle Dean..	25·42	27·75	19·67	8·08	— 29
,,	,, ...	Ilderton (Lilburn Tower).	28·66	31·33	25·51	5·82	— 19
,,	Cumberland.	Seathwaite	154·05	134·95	101·57	33·38	— 25
,,	,, ..	Ullswater (Hallsteads) ...	58·13	55·31	39·40	15·91	— 29
,,	,, ..	Keswick Post Office 6 ft.	62·40	59·14	43·83	15·31	— 26
,,	,, ...	Bassenthwaite(Mirehouse)	53·76	50·20	36·27	13·93	— 28
,,	,, ...	Cockermouth(Whin. Hall)	57·37	52·15	40·99	11·16	— 21
,,	Westmorelnd	Kendal...	53·32	51·78	32·37	19·41	— 37
XI.	Glamorgan ..	Cardiff (Ely)	42·02	46·35	31·59	14·76	— 32
,,	Carnarvon...	Llandudno	31·00	33·63	21·61	12·02	— 36

SCOTLAND.

DIV.	COUNTY.	STATION.	Average.		Depth in 1887.	Difference from average, 1870-9.	
			1860-9.	1870-9.		Amount.	Per cent.
			in.	in.	in.	in.	
XII.	Kirkcudbrght	Cargen [Dumfries]	44·37	46·65	32·06	14·59	— 31
,,	Dumfries ...	Dumfries (Crichton Inst.)	39·00	41·84	25·73	16·11	— 39
,,	Roxburgh ...	Kelso (Springwood Park)	24·66	27·90	26·16	1·74	— 6
XIII.	Selkirk	Bowhill	33·03	35·21	23·88	11·33	— 32
,,	Peebles	North Esk Reservoir	38·01	38·66	34·35	4·31	— 11
,,	Haddington.	East Linton	23·77	29·36	21·60	7·76	— 26
,,	Edinburgh ..	Glencorse	37·52	40·52	34·81	5·71	— 14
,,	,, ...	Harlaw	37·64	38·04	29·50	8·54	— 22
XIV.	Lanark	Hamilton (Bothwell Cas)	28·89	31·72	21·83	9·89	— 31
,,	Ayr	Kilmarnock (N. Craig) ...	43·29	40·16	27·47	12·69	— 32
,,	Renfrew	Ryat Lynn	47·80	50·07	38·20	11·87	— 24
,,	,, ...	Waulk Glen	49·85	48·41	36·90	11·51	— 24
XV.	Stirling	Stirling (Kerse)	32·96	33·47	23·80	9·67	— 29
,,	Argyll	Lochgilphead (Poltalloch)	54·25	56·35	36·27	20·08	— 36
,,	,, ...	Stonefield	69·62	71·73	56·54	15·19	— 21
XVI.	Kinross	Loch Leven	36·22	38·05	27·00	11·05	— 29
,,	Perth	Aberfoyle	61·82	59·39	29·85	29·54	— 50
,,	,, ...	Dunblane (Kippenross) ...	36·16	36·00	21·20	14·80	— 41
,,	,, ...	Lanrick Castle	48·48	47·46	34·40	13·06	— 28
,,	,, ...	Bridge of Turk	61·89	72·32	47·85	24·47	— 34
,,	,, ...	Auchterarder (Colquhalzie)	40·34	40·12	29·02	11·10	— 28
,,	Forfar	Craigton .....M	34·88	41·96	28·80	13·16	— 31
,,	,, ...	Hill Head .....M	35·19	41·82	28·14	13·68	— 33
,,	,, ...	Arbroath	29·05	30·49	21·25	9·24	— 30
XVII.	Kincardine ..	The Burn [Brechin]	34·91	37·85	22·40	15·45	— 41
,,	Aberdeen ...	Braemar	33·40	38·14	25·10	13·04	— 34
,,	,, ...	Aberdeen (Rose Street) ...	29·43	31·75	24·41	7·34	— 23
,,	Elgin	Gordon Castle	29·19	32·26	24·84	7·42	— 23
XVIII	Inverness	Culloden	27·08	25·46	19·07	6·39	— 25
XIX.	Sutherland ..	Golspie (Dunrobin Cas.)M	27·69	31·94	24·30	7·64	— 24
,,	Orkney	Shapinsay (Balfour Cas.).	32·41	30·41	26·70	3·71	— 12

IRELAND.

XX.	Waterford ...	Portlaw	44·44	41·65	26·66	14·99	— 36
XXI.	Kilkenny ...	Inistioge (Woodstock) ...	39·38	46·64	25·15	21·49	— 46
XXIII.	Armagh	Armagh Observatory .. 1ft.	32·01	30·95	23·62	7·33	— 24
,,	Antrim	Belfast (Queen's Coll.)	34·22	34·92	23·45	11·47	— 33

EXTREMES OF RAINFALL IN 1887.

Largest Rainfall, at The Stye, Cumberland..... 130·90 in.
Least Rainfall, at Sleaford, Lincolnshire ..... 12·78 ,,

ENGLAND.

Greatest.			Least.		
Div.		in.	Div.		in.
X.	The Stye	130·90	VII.	Sleaford	12·78
,,	,, *New S.E. gauge*...	113·80	III.	Stanground Sluice	12·91
,,	Seathwaite	101·57	VII.	Crowle (Keadby)	13·41
,,	,, (Marshall).....	97·39	IX.	Wakefield (Field Head)	13·62
,,	Styehead Tarn	87·70	III.	Wistow	13·74
,,	Buttermere (Hassness)	81·22	IX.	Wakefield (Stanley Vicarage)...	14·10

WALES.

Greatest.			Least.		
Div.		in.	Div.		in.
XI.	Llanbedr-y-Cennin(Llyndulyn)	80·45	XI.	Isle of Man (Derbyhaven) ...	19·29
,,	Treherbert	64·25	,,	Rhyl (Sedgeley House)	19·66
,,	Pen-y-gwryd	61·75	,,	Prestatyn (Nant).....	20·59
,,	Neath (Glyncorrwg)	59·98	,,	Welshpool (Pool Quay Vic.)	21·39
,,	Cardiff, W.W. (Cwm Taff Fawr, No.6).....	55·26	,,	Monmouth (Pentwyn).....	21·42
,,	Cardiff, W.W. (Cwm Taff Fawr No. 5).....	54·29	,,	Aberystwith.....	21·59

SCOTLAND.

Greatest.			Least.		
Div.		in.	Div.		in.
XVIII.	Ben Nevis Observatory.....	129·01	XIII.	Leith	17·41
,,	Glenquoich	96·04	XVI.	Arbroath.....	17·76
,,	Loch Shiel (Glenaladale) ...	93·15	XVIII.	Fearn (Lower Pitkerrie) ...	17·99
XV.	Lock Eck (Benmore).....	83·21	XVI.	Montrose (Sunnyside Asy.)	19·07
XVIII.	Glencarron	80·27	XVII.	Nairn (Acharéidh)	19·30
XV.	Loch Eil (Conaglen)	75·84	XVI.	Pittenweem (The Priory)...	19·31

IRELAND.

Greatest.			Least.		
Div.		in.	Div.		in.
XX.	Killarney (Gap of Dunloe)...	75·75	XXI.	Glasnevin (Botanic Gardens)	14·04
,,	Mangerton	63·00	,,	Dalkey (Bellevue Park)	15·35
,,	Clifden (Kylemore)	58·33	,,	Dublin (Phœnix Park) ...	16·31
XXIII.	Killybegs	50·68	,,	,, (Upper Leeson St.)	16·68
XX.	Kenmare (Inishfea)	50·67	,,	Killiney (Cloneevin)	17·64
XXII.	Belmullet	48·45	,,	Clonee (Williamstown)	17·81

GENERAL TABLES

OF

TOTAL RAINFALL IN 1887,

AT UPWARDS OF

2000 STATIONS

IN THE

BRITISH ISLES.

EXPLANATION OF THE ARRANGEMENT OF THE FOLLOWING GENERAL TABLES.

The divisions are the same as those adopted by the Registrars General of England and Scotland, and the counties follow the same order as in the reports of those officers; but an alphabetical list of the counties is given, whereby the page or pages on which all returns from each county will be found, can be at once ascertained.

The stations in each county are arranged nearly in the order of their latitude from South to North.

To facilitate finding the fall in any part of the country, the first name is almost always that of a place given in *Bradshaw*, the *British Postal Guide*, or the *Clergy Directory;* the second name is generally added to fix accurately the site of Observation; but, in a very few instances, the second name is in [ ] instead of ( ); it then shows that the nearest town is in an adjoining county. For instance, "Lowestoft (Carlton Colville)" means Carlton Colville, near Lowestoft, both being in one county, but "Geldeston [Beccles]" means Geldeston, Norfolk, near Beccles, in another county—Suffolk.

The contents of the columns are sufficiently explained by the headings, except that in the column headed "diameter," figures will occasionally be noticed of a different type from the rest of the tables, these figures indicate the length of the sides of rectangular mouthed gauges. These measurements are all in inches.

The letter D denotes that a copy of the daily record has been received, that it is perfect throughout the year, and that the printed amount is the correct total of these daily entries. The letter M indicates a monthly record, *i.e.*, that the observation is made only on the first of each month.

An asterisk * denotes that the gauge was tested before erection, and a † that it has been visited and examined since. A note of interrogation (?) implies doubt, not necessarily error. ... indicates the absence of information.

In the column of altitudes several symbols are used, their meaning is as follows:—Ⱨ, that a series of levels has been taken from the gauge to an Ordnance bench mark; T, that the height is estimated or ascertained approximately from the same source; L, that levels have been taken from the gauge to the sea, or to some datum other than Ordnance mean sea level; B, that the altitude has been taken by the barometer; and ?, that the height is uncertain.

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ENGLAND AND WALES.

DIVISION I.—MIDDLESEX.

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above SeaLevel	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
MIDDLESEX.						
D Sunbury (Hanworth Road)	W. B. Bryan, Esq., C.E.	8	1 0	50 ⅄	17·34	121
Teddington (Gomer House)	R. D. Blackmore, Esq..	5	0 10	26 ⅄	20·08	126
Staines (Knowle Green)	Miss Pellatt	5	5 2	...	18·64	113
D Isleworth (Spring Grove)	R. W. Peake, Esq. ...	5	1 0	69 T	19·04	...
Chiswick (Pumping Station) ...	J. Hetherington, Esq..	8	4 6	24 ⅄	16·42	..
D Gunnersbury Station	E. Mann, Esq.	5	0 11	35	18·39	129
Ealing (Local Board Office)	C. Jones, Esq., C.E. ...	5	27 0	110 T	19·09	116
Westminster(SpringGrdns),S.W.	Sir J. W. Bazalgette, C.E	8	6 0	35 ⅄	19·11	..
D Kensington (Edith Road).....	G. von U. Searle, Esq.	5	0 10	35?	18·72	141
D ,, (Holland House) ...	Mr. C. Dixon	5	6 6	68 ⅄	19·95	126
D ,, (Addison Gardens)...	G. H. M. Whish, Esq..	5	1 1	23 T	20·44	147
,, (Campden Hill, W.)	Thelate T. Hack, Esq, CE	8	4 10	130 ⅄	20·08	132
D London (Lansdowne Cres. W.)...	G. T. Gwilliam, Esq...	5	0 9	79 T	20·04	137
,, (Guildhall), E.C.	Col. Haywood, C.E. ...	8	2 6	49 T	15·61	118
,, (,,)	,, ,, ,, ...	8	51 0	98 T	15·46	118
,, (Old Street), E.C.	The Royal Meteor. Soc.	5	1 0	70 T	19·43	152
Perivale (Sewage Farm)	C. Jones, Esq., C.E. ...	5	1 0	56 T	17·20	132
London(Regent's Pk. R. Bot. Soc.)	W. Sowerby, Esq.....	8	1 0	126 ⅄	20·89	141
D† ,, (Camden Square), N.W..	G. J. Symons, Esq. F.R.S	8	0 8	111 ⅄	19·21	140
,, (,, ,,) .....M	,, ,, ,, ...	5	1 0	111 ⅄	19·28	...
† ,, (235, Camden Road), N.	W. B. Butler, Esq. ...	5	3 0	160 T	19·07	145
† ,, (,, ,, ,,) ...M	,, ,, ,, ...	5	1 1	160 T	19·46	...
Hackney (Richmond Road), E....	J. W. Tripe, Esq. M.D.	5	7 0	65 ⅄	16·17	147
Hampstead (Roslyn House) N.W.	C. H. L. Woodd, Esq..	8	1 4	330 T	19·66	...
,, (Kidderpore Reserv.)	Thelate T. Hack, Esq, CE	8	1 6	323 ⅄	19·65	114
,, (Branch Hill Lodge)	B. Woodd Smith, Esq.	8	0 10	380 T	19·37	...

DIVISION I.—MIDDLESEX.—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Ground in.	Height Above Sea Level feet.	Depth of Rain. 1887 inches.	Days on which '01 or more fell.
MIDDLESEX—(*con.*)							
†Hampstead (Squire's Mount) ...	Rogers Field, Esq. C.E.	5	1	0	388 ⊼	19·72	138
,, (The Pryors)	,, ,, ,, ,,	5	1	0	327 ⊼	18·96	149
Holloway (Manor Road)	Miss Varty.....	5	1	2	100	17·70	...
D Stoke Newington Res., N.....	J. Francis, Esq., C.E.	9	3	3	104 T	17·13	133
†Highgate Nurseries, N....	H. J. Cutbush, Esq. ...	5	1	0	399 ⊼	19·64	124
,, (Northwood Road).....	Mrs. Sowerby Wallis...	5	1	0	300 ?	18·96	...
†Child's Hill (Helenslea), N.W....	A. J. Woodhouse, Esq.	5	1	6	245 T	19·59	155
,, ,, (,,) ,, M	,, ,, ,, ...	5	1	6	245 T	18·02	...
D Upper Clapton (Warwick Road)	W. Hayward, Esq. ...	5	3	6	...	18·77	149
,, ,, ...	S. A. M. Satow, Esq...	8	1	0	88	16·56	...
* ,, ,, (The Common)..	J. Parnell, Esq.	5	1	1	98 ⊼	17·23	138
D†Muswell Hill	Miss Abethell.....	5	0	10	310 T	21·44	160
Finchley East (Elmhurst).....	B. C. Wainwright, Esq.	8	0	7	300 T	20·06	...
† ,, (Etchingham Park) ...	J. W. Scott, Esq.	5	0	11	295 T	20·47	156
D† ,, (,, ,,) ...	,, ,, ,, ...	8	1	3	295 T	20·78	156
D Pinner Hill.....	A. Helsham-Jones, Esq.	5	3	6	410 T	20·29	134
D Uxbridge (Harefield Park)	W. F. Vernon, Esq. ...	8	1	0	296 ⊼	20·87	115
Winchmore Hill (Chase Side) ...	Mr. G. Duffield	5	0	11	...	19·08	123
D Enfield (Old Park)	A. L. Ford, Esq.	5	1	9	156 T	20·02	154
D ,, (Nag's Head Lane)	J. Francis, Esq., C.E..	12	3	0	108 T	19·77	149
D ,, (Forty Hill)	T. Paulin, Esq.	8	1	0	...	19·75	145
,, (,, ,,)	,, ,, ,, ...	5	1	0	...	19·70	145
,, (,, ,,)	,, ,, ,, ...	5	5	0	...	19·67	...
D Monken Hadley [Barnet].....	F. A. Milne, Esq.	5	0	10	426 T	19·89	133

DIVISION II.—SOUTH EASTERN COUNTIES.

SURREY.							
D Haslemere	J. W. Penfold, Esq. ...	8	4	0	481 ⊼	28·59	129
,, (Grayswood Hill)	B. E. C. Chambers, Esq.	5	1	0	580 ⊼	28·51	...
Godalming (Dunsfold)	Mr. W. Underwood ...	5	1	6	166	19·24	...
Haslemere (Weycombe)	G.B.Buckton,Esq.FRS.	5	4	0	583 ⊼	25·63	...
Godalming (Hascombe).....	E. S. Rowcliffe, Esq....	10	2	0	263 T	22·50	...
D Ewhurst (Heathside).....	J. Sparkes, Esq.	5	0	9	600 ⊼	26·99	154
D Godalming (Witley)	Mrs. Foster.....	5	1	0	350 ?	23·82	124
Dorking (Holmbury).....	Mr. Bayman	5	1	0	560 T	26·90	167
D ,, (Abinger Hall)	Sir T. H. Farrer, Bt....	8	2	0	320 T	26·96	...
† ,, (Holmwood)	A. Sconce, Esq.	5	1	2	320 T	25·72	...
D Betchworth (Brockham Vic.) ...	Rev. A. Cheales	5	1	0	158 ⊼	24·99	133
D Guildford(GuildownTheBeeches)	Miss Hadden	5	0	11	220 T	23·16	148
D ,, (,, Observatory)	J. Rand Capron, Esq...	5	1	1	249 ⊼	21·14	130
D Farnham (The Bourne Vicarage)	Rev. T. W. Sidebotham	5	1	0	308 ⊼	21·82	139
D Reigate (Woodhatch Lodge) ...	T. B. Haywood, Esq...	5	1	0	270 T	23·39	137
D ,, (Ringley Mead)	R. L. Hesketh, Esq. ...	5	1	1	345 T	24·00	129
Dorking (The Denbies)	Mr. J. Beesley	5	0	6	610 T	27·95	133
D Buckland (Shagbrook)	Miss Carr Saunders ...	5	1	0	240	22·22	133

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
SURREY—(*con.*)						
D†Redhill (Oxford Road)	W. H. Tyndall, Esq....	8	1 0	300 ⅄	24·39	148
D Reigate (Dovers Lodge)	R. W. Clutton, Esq....	5	0 7	192	23·51	109
D ,, (Holmfels)	Miss Baker	5	1 0	264 T	23·74	142
D ,, (Springfield)	T. P. Newman, Esq...	5	1 0	300 ⅄	25·00	156
,, (Castle Grounds)	Mr. G. Crutchfield.....	5	1 0	325 ⅄	22·71	142
D ,, (Doods)	G. E. Pym, Esq.....	5	1 6	350 ⅄	23·81	147
† ,, (Wray Park)	A. Rosling, Esq.....	5	1 0	330 T	24·28	138
D ,, (Nutwood)	H. E. Gurney, Esq. ...	5	1 4	440 T	25·93	149
D Nutfield Priory	J. Fielden, Esq.....	8	1 2	468 ⅄	21·82	146
,, (Holmesdale)	C. T. Maw, Esq.	8	1 0	500 T	22·54	137
D Reigate Hill (Lovelands)	R. Binns, Esq.	5	1 3	600 ?	25·45	147
D ,, ,,	BaldwinLathamEsqCE	5	1 0	687 ⅄	25·36	154
D Guildford (Wern)	Major Mathew	5	4 0	170	19·28	110
D Dorking (High Ashurst)	The Hon. H. D. Ryder	5	12 0	550	23·69	131
Horsley Towers	The Earl of Lovelace...	8	1 2	300	24·97	...
D Titsey (Botley Hill)	BaldwinLathamEsqCE	5	1 0	870 ⅄	28·38	167
D Chipstead (Parson's Green)	,, ,, ,, ...	5	1 0	506 ⅄	25·58	135
CaterhamValley(Birchwood Ho.)	Messrs. C. & F. Rutley	5	1 0	471 ⅄	23·33	...
D Pirbright Vicarage	Rev. F. Owston	5	1 0	151 ⅄	19·71	166
D†Chelsham (Henley)	BaldwinLathamEsqCE	5	1 0	607 ⅄	22·14	131
D Ashtead (D'Abernon Chase) ...	Sir W. Vincent, Bart..	5	1 0	300 T	19·78	107
Epsom (Campville)	J. T. Withers, Esq. ...	5	1 2	195 ⅄	21·54	122
D Woking (Horsell Vic.)	Rev. J. Back	5	1 0	141 ⅄	17·97	143
D Cobham (Leigh Hill House) ...	J. Macaulay, Esq.....	5	2 4	79	19·77	129
D Caterham Junction (Tudor Cot.)	BaldwinLatham EsqCE	5	1 0	216 ⅄	26·91	129
D Bagshot (Collingwood)	Mr. J. Bryan	5	1 0	396 ⅄	19·41	130
D Chertsey (Ottershaw)	R. H. Otter, Esq.	5	1 0	200 T	18·61	156
Weybridge Heath (Netherfield)..	C. H. Parkes, Esq. ...	5	1 0	160	19·14	133
D ,, ,, (Oakfield) ...	H. Yool, Esq.	5	1 0	107 ⅄	19·14	147
,, (St. George's Lodge)	Mrs. Smith	5	1 9	...	20·48	...
,, (Church Street) ...M	H. Yool, Esq.....	5	1 0	55 ⅄	18·93	...
Esher (West End)	W. H. Dines, Esq.....	5	1 0	55 ?	20·02	...
Walton-on-Thames (Hersham)..	,, ,, ,, ...	8	4 0	55 ⅄	19·38	...
D Addington	BaldwinLathamEsqCE	5	1 0	268 ⅄	23·20	136
D Wallington (Springfield Road)...	F. C. Bayard, Esq. ...	5	4 1	161 ⅄	25·29	149
†Sutton (Mulgrave Road)	W. Goode, Esq.....	5	5 6	230 ⅄	23·78	139
D ,, (Grange Road)	W. Thurtell, Esq.....	5	1 6	230	21·81	142
D Croydon (Waddon House)	P. Crowley, Esq.	5	1 0	156 T	21·80	165
D ,, (Coombe Lane)	BaldwinLatham EsqCE	5	1 0	213 ⅄	23·81	118
D ,, (Dingwall Road)	G. Corden, Esq.....	5	1 0	189	21·77	144
D† ,, (Nantwich House)	BaldwinLatham EsqCE	8	4 0	259 ⅄	22·15	145
D ,, (,, ,,)	,, ,, ,, ...	8	1 0	253 ⅄	22·96	154
D ,, (Brimstone Sew.Works)	,, ,, ,, ...	5	1 0	130 ⅄	20·66	122
D*† ,, (Addiscombe)	E. Mawley, Esq.	8	0 9	202 ⅄	22·71	163
†Beddington	S. Rostron, Esq.....	5	1 0	102 T	21·62	145
D Chertsey (Long Cross)	C. H. Berners, Esq. ...	8	1 9	168 T	19·34	139
D Surbiton (Seething Wells)	R. Hack, Esq., C.E. ...	11	0 4	25	18·29	139

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1887	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
SURREY—(*con.*)						
D East Molesey (Palace Road).....	Mrs. Jenkyns.....	8	6 5	37	18·56	136
D Wimbledon.....	T. Devas, Esq.	12	3 0	157 T	21·38	146
D ,, (Raynes Park)	W. S. Crimp, Esq., C.E.	5	1 0	47	21·79	158
D ,, (Sewage Works).....	BaldwinLatham EsqCE	5	1 0	58 ⊼	20·69	134
D† West Norwood	W. Marriott, Esq.....	8	1 0	185 T	20·85	153
D Virginia Water (Northlands) ...	M. Ashby, Esq.....	5	1 0	199 T	18·88	134
Egham (Cooper's Hill)	The Meteor. Council...	8	1 1	280	18·52	150
D Forest Hill (Border Lodge)	J. Porter, Esq.	8	0 11	260	20·43	122
D Richmond (Ormond Lodge)	J. T. Billett, Esq.	5	0 9	51	20·35	156
D Kew Observatory	The Kew Committee ...	11	1 9	19 ⊼	19·40	151
Brixton (Acre Lane)	The Meteor. Council ...	8	1 0	77 T	20·17	...
D Battersea Creek	Sir J. W. Bazalgette, CE	8	27 2	41 ⊼	18·09	121
D Vauxhall Cross	,, ,, ,, ,,	8	30 9	48 ⊼	15·64	129
KENT.						
Dungeness	The Meteor. Council ...	...	...	...	21·35	...
D Hawkhurst(SandhurstRec)Gard.	Rev. G. Ridout	5	1 3	208 ⊼	24·96	137
D ,, (,, ,,) Lawn	,, ,, ...	5	1 3	206 ⊼	25·68	137
D Dymchurch (New Hall)	H. D. Good, Esq., C.E.	8	1 0	12 ⊼	22·08	162
Tenterden (Summerhill)	Rev. A. Wilkin.....	12	1 0	149 ⊼	22·57	138
Benenden (East End)	J. Ellis Mace, Esq.....	8	1 5	193 ⊼	22·56	...
,, ...*Snowdon*	,, ,, ,,	5	1 0	150 T	21·86	...
D Tenterden	,, ,, ,,	8	1 5	190 ⊼	23·89	176
,, ... *Snowdon*	,, ,, ,,	8	1 5	190 ⊼	23·30	...
,, (Ashbourne)	A. Pinyon, Esq.....	5	2 8	45 T	23·00	...
D† Hythe	H. B. Mackeson, Esq...	8	0 6	12 T	25·07	158
,, (Hillhurst Farm)	G. F. Deedes, Esq. ...	5	2 0	...	27·11	150
Cranbrook (Swattenden)	The late R. Appach, Esq.	8	1 2	350 T	22·42	150
† ,, (Hartley)	G. Pile, Esq.	5	4 0	405 T	25·23	175
Hythe (Paddlesworth)	Mr. R. Dixon.....	8	1 0	608 ⊼	34·16	...
D Gowdhurst Vicarage.....	Rev. J. S. Clarke	5	1 1	410 T	22·35	155
D† Dover (Pencester Street)	H. J. Poulter, Esq. ...	5	2 0	32	23·45	147
D ,, (Kearsney Abbey)	Mr. C. Maxted	5	0 10	94 ⊼	29·11	158
D Acrise (School Ho.)	G. C. Woollett, Esq. ...	8	1 0	504 ⊼	31·34	188
,, Place	F. A. Mackinnon, Esq.	8	0 6	485 T	28·57	...
D Tunbridge Wells (Camden Park)	J. Weston, Esq.	5	0 9	424 ⊼	27·07	170
D Ashford (Bethersden)	W. H. Mold, Esq.....	5	3 0	112 ⊼	22·28	169
D ,, (Beavor Green)	T. Nickalls, Esq.	5	1 0	155 T	25·45	157
D Tunbridge Wells (Etherton Hill)	E. W. Winton, Esq....	5	1 5	276 ⊼	25·10	121
D ,, ,, (Pembury) ...	W. Brentnall, Esq. C.E.	8	1 8	181 ⊼	24·07	145
Tunbridge (Penshurst Place) ...	The Hon. H. Sidney...	5	0 11	115	22·52	...
D ,, (St. Mary's).....	W. C. Punnett, Esq....	5	1 6	96 ⊼	24·23	137
,, (,, ,,) *Snowdon*	,, ,, ,, ...	5	1 0	96 ⊼	23·96	132
,, (,, ,,) .....M	,, ,, ,, ...	8	4 0	98 ⊼	24·10	...
Ashford (Eastwell Rectory)	Rev. G. E. Gwynne ...	5	0 11	270 T	24·76	...
D ,, (Westwell)	Rev. H. H. D'Ombrain	5	1 0	272 ⊼	25·78	144
D Edenbridge (Falconhurst)	J. G. Talbot, Esq., M.P.	5	1 0	300	24·56	107
D Lower Walmer	Mr. G. L. Hall	5	1 4	20	24·05	141

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
KENT—(*con.*)						
D†Maidstone (Hunton Court)	Mr. P. Goddard	8	0 6	80 T	21·46	131
D ,, (Lower Tovil)	L. Green, Esq.	5	1 0	30	22·18	142
D ,, (Mote Park)	Mr. C. Davies	12	3 6	95 ?	21·02	142
D ,, (Mount House)	C. A. Case, Esq	5	1 0	170 ?	24·46	152
D ,, (Hospital)	M. A. Adams, Esq.	5	...	200	21·73	110
D ,, (Debtling)	R. Cooke, Esq.	5	1 2	330 T	24·62	177
Sheldwich	Rev. B. S. Malden	5	1 0	250 T	27·37	149
D†Selling (Harefield)	The late E. Neame, Esq.	5	2 6	217 T	27·08	174
D Canterbury (Burgate Street)	B. Rigden, Esq	5	9 6	58 ⅄	21·97	135
,, (Harbledown)	Miss Metcalfe	5	1 6	165	24·47	153
†Seven Oaks (River Hill)	J. T. Rogers, Esq.	8	3 6	535 ⅄	21·85	...
D ,, (Clare Bank)	J. M. Clabon, Esq	5	4 0	540 T	24·09	156
D† ,, (Riverhead Vic.)	Rev. J. M. B. Murdoch	5	0 6	300 T	22·93	145
D Sittingbourne (Sharsted Court)	Faunce de Laune, Esq.	5	1 0	276	26·80	160
D Bicknor Rectory	Rev. W. G. Waterman.	5	1 0	560 ?	23·88	133
Ospringe (Lorenden)	W. C. Stunt, Esq.	5	1 3	180 ?	24·97	135
D Sittingbourne (Rodmersham)	R. M. Mercer, Esq.	5	1 0	140 ⅄	21·72	139
D ,, (Hartlip Place)	BaldwinLatham Esq CE	5	1 0	...	23·37	149
D Keston	Miss Holland	5	0 6	420 T	24·26	140
,, M	,, ,,	5	0 6	420 T	24·02	...
D ,, Tower	G. Buchanan, Esq., C.E.	8	0 10	351 T	24·56	137
†Ramsgate (The Vale)	M. Jackson, Esq.	5	1 0	90 T	22·92	153
D Birchington	E. S. Lendon, Esq	5	1 0	70	20·89	125
Herne Bay	R. M. Mercer, Esq.	5	1 0	4 ?	18·69	105
D Reculver (Brook)	A. Collard, Esq	5	6 3	40	18·53	138
D Hayes (Layham's Farm)	W. Ashcroft, Esq	5	1 4	500	23·13	147
D ,, Common (The Warren)	Miss Akers	5	1 0	296	23·72	157
Chatham	The Meteor. Council	...	1 3	137	19·79	115
D Rochester (Knights Place)	J. Pye, Esq.	5	2 6	320	21·83	140
D Margate (Renfrew Villa)	T. Twyman, Esq.	5	1 0	50 T	21·63	159
D ,, (Apsley House)	J. Stokes, Esq.	5	1 0	84 L	21·93	153
Sheppey (Greenborough)	R. M. Mercer, Esq.	5	2 0	0	23·94	...
D ,, (Leysdown)	Rev. A. Farbrother	5	1 2	47	17·97	151
D Frindsbury (Manor Farm)	Mr. F. Baker	5	1 0	100	18·92	125
D Beckenham (West Wickham)	BaldwinLatham Esq CE	5	1 0	230 ⅄	21·39	123
Bickley (Highfield)	J. Batten, Esq.	5	1 2	285	21·84	...
Chislehurst (Hillside)	Col. Silver	5	1 5	...	22·27	...
,, (The Chestnuts)	J. B. Snell, Esq.	5	1 0	325 T	19·21	123
D†Beckenham (Foxgrove)	Percy Bicknell, Esq.	5	0 6	142 ⅄	21·11	136
D† ,, (,,)	,, ,, ,,	5	4 0	145 ⅄	20·42	132
D Rochester (Abbot's Court, Hoo.)	Warwick Stunt, Esq.	5	1 0	10	18·58	135
Forest Hill (Newfield House)	E. F. Behrens, Esq.	5	1 0	...	17·00	...
D Gravesend (Park Place)	Mrs. Walker	5	1 0	24?	18·83	129
D Rochester (Cooling Castle)	W. Wood, Esq.	5	4 10	10	18·69	114
,, (Hoo St. Mary)	H. Pye, Junr., Esq.	5	5 6	146 T	16·62	139
D Lee (Blessington Road)	Late J. Grant, Esq., CE	10	4 9	49 ⅄	22·38	131
D Shooters Hill	Capt. Sherrard, R.E.	5	1 0	352	19·76	147
D Blackheath	J. Glaisher, Esq., F.R.S.	8	0 5	150	20·48	135

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above SeaLevel	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
KENT—(*con.*)						
Blackheath Park (Elmsdale) ...	C. Lethbridge, Esq. ..	5	0 11	90	19·38	136
Greenwich (Royal Observatory)..	W.H.Christie,Esq.FRS	8	0 5	155 T	19·86	142
D Deptford (Pumping Station).....	Sir J.W. Bazalgette, CE	10	1 3	18 ⅄	21·88	130
Erith (Crossness)	,, ,, ,, ...	14	1 0	16 ⅄	17·24	143
,, (,,)	,, ,, ,, ...	14	1 0	24 ⅄	18·67	143
,, (,,)	,, ,, ,, ...	11	1 0	6 ⅄	20·87	143
WEST SUSSEX.						
Bognor (Lidsey Lodge).....	H. Neale, Esq.	8	1 2	...	21·86	122
D Littlehampton (Surrey House)...	G. Neame, Esq.	5	1 8	20 T	21·37	111
D Worthing (Heene).....	W. J. Harris, Esq. ...	8	1 0	34 ⅄	21·28	137
D Arundel (Yapton)	W. A. Hounsom, Esq..	5	1 0	24 ⅄	22·26	131
,, (,, Drove Farm).	,, ,, ,, ...	5	1 0	14 T	21·15	130
Chichester (WestgateMeadow)...	Dr. Tyacke.....	8	0 6	40	23·47	104
D Arundel (Clapham Rectory) ...	Rev. A. H. S. Barwell	5	1 0	150 T	22·78	154
,, (Patching)	J. Drewitt, Esq.....	5	1 0	180	23·55	135
,, (The Parade)	R. Holmes, Esq.	8	3 1	75	24·58	...
,, (Dale Park)	Mr. E. Sandford	5	0 11	320	27·45	...
†Steyning.....	Col. Ingram	5	1 0	80 T	26·01	...
Chichester (Eartham House) ...	Sir P. Milbanke, Bt....	3	4 6	316 ⅄	21·68	...
,, (West Dean)	Mr. G. Broomfield.....	5	1 6	190 T	31·97	117
,, (Singleton Rectory)...	Rev. F. A. Bowles.....	5	1 0	240	29·87	...
† ,, (Chilgrove)	J. W. Woods, Esq. ...	5	1 0	284 T	25·31	...
D Compton [Petersfield]	Rev. H. M. Langdale...	5	1 0	255 ⅄	28·35	132
D Midhurst (Cocking)	Rev. R. Drummond Ash	8	2 6	220	30·24	119
†Petworth Rectory	Rev. C. Holland.....	5	3 6	180 ⅄	28·57	103
Midhurst (Lynch Farm)	G. Eames, Esq.	5	0 6	160 T	31·27	...
†Horsham (Leonardslee).....	Mr. Ford.....	5	1 6	273 T	25·98	...
D ,, (Rusper)	A. F. Parbury, Esq. ...	5	1 0	372 ⅄	23·01	116
,, (,,)	,, ,, ,, ...	5	1 2	374 ⅄	19·98	...
EAST SUSSEX.						
Beachy Head ..... M	Miss W. L. Hall	5	1 0	515 T	18·73	...
,, ,, ... M	,, ,, ,, ...	5	1 0	495 T	21·80	...
Eastbourne (Osborne House).....	,, ,, ,, ...	5	4 0	12 T	24·30	161
† ,, (The Gore)	,, ,, ,, ...	5	1 0	85 T	23·53	155
† ,, (Cemetery)	,, ,, ,, ...	5	4 0	160 ⅄	25·63	149
†Brighton (Old Steine)	The late Dr. Taaffe ...	5	1 0	35	22·10	127
† ,, (Blatchington Road) ...	Mr. J. Park	8	0 6	55 T	22·45	...
,, (W.W.GoldstoneBotm.).	J. Baker, Esq.	5	0 10	140 ⅄	24·07	...
D† ,, (,, Lewes Road) ...	Mr. W. Insell	5	3 8	105 T	23·60	154
St. Leonards (London Road) ...	The Meteor. Council ...	5	1 0	166 T	23·96	175
D ,, (The Grove).....	W. B. Young, Esq. ...	5	1 1	110 T	22·94	140
D†Hastings (The Hollies)	A. H. Wood, Esq. C.E.	5	1 0	100 ⅄	23·50	179
D ,, (Buckshole).....	W. Andrews, Esq.....	8	0 8	106	23·18	148
D Hailsham.....	Rev. F. Clyde Harvey..	5	1 0	105	25·90	108
D†Falmer.....	R. R. Verrall, Esq. ...	5	2 6	312 ⅄	25·39	113

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground.	Rain Gauge. Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
EAST SUSSEX—(*con.*)						
D Lewes (Iford)	A. Hillman, Esq.	5	1 0	33 T	24·88	151
D† ,, (Glynde Place)	Mr. W. McLeod	5	4 6	49 T	25·47	130
D ,, (Bedford Lodge)	Mrs. Kemp	5	1 0	100 T	23·07	134
D ,, (Castle Place)	J. G. Braden, Esq.	5	0 11	100 T	25·28	115
D ,, (Southmalling)	Miss M. H. Rickman	8	0 10	40 ⅄	23·68	138
D ,, (,,)	,, ,, ,,	5	0 10	40 ⅄	22·60	137
†Hastings (High Beech Hollington)	Col. Lewis	5	1 0	320 T	22·37	148
Lewes (Conyborough Park)	Lord Monk Bretton	...	...	...	31·12	...
Hurstpierpoint (Danny Park)	W. H. Campion, Esq.	...	...	...	27·48	...
D Winchelsea (The Friars)	Miss Stileman	5	1 2	115 T	18·34	128
Battle (Whatlington)	F. Gripper, Esq.	5	1 3	...	26·78	146
Waldron (Heatherden House)	J. G. Boucher, Esq.	...	...	...	27·63	114
D Burgess Hill (Prescott)	W. T. Reynolds, Esq.	5	1 0	...	24·62	129
Wivelsfield (Lyoth)	T. P. Descow, Esq.	5	1 1	...	25·86	...
D Newick (Ketches)	Capt. G. Ruck Keene, RN	8	0 7	192 T	20·98	107
,, (Beechlands)	T. St Leger Blaauw, Esq.	...	...	...	23·65	...
D Uckfield House	Miss L. Day	8	0 8	200 B	25·16	165
D†Maresfield (Forest Lodge)	Capt. W. Noble	8	1 2	247 ⅄	25·97	165
D†Fletching	Dr. Treutler	5	1 0	140	25·16	146
,, (Sheffield Park)	The Earl of Sheffield	...	...	...	23·91	...
D Cuckfield (Borde Hill House)	Mr. R. Inglis	5	3 0	270 B	27·35	145
D†Mayfield Vicarage	Rev. H. T. M. Kirby	8	0 8	425 T	26·40	141
D†Crowborough (The Observatory)	C. L. Prince, Esq.	8	0 8	777 ⅄	29·23	155
D Balcombe Place	B. A. Hankey, Esq.	8	1 3	289 T	27·24	150
Ticehurst	Mr. H. F. Edwards	8	4 9	423 ⅄	25·34	109
D Wadhurst (Lower Cousley Wood)	F. Wilkin, Esq.	5	1 0	416 ⅄	24·01	155
Lamberhurst (Scotney Castle)	E. Hussey, Esq.	5	4 3	202 T	21·68	...
D Frant (Myrtle Villa)	Miss Appellina Scott	5	1 0	500 T	28·15	153
,, (Eridge Castle)	Mr. J. Rust	6	2 0	400	28·69	...
D Withyham (Leyswood)	Mr. T. Moorhouse	8	1 4	420	29·48	129
Forest Row (Ashdown Cottage)	H. J. Slack, Esq.	8	3 6	386 B	25·95	...
Worth Rectory	Rev. G. W. Banks	5	4 6	309 ⅄	25·80	139
East Grinstead (Halsford Park)	W. V. K. Stenning, Esq.	5	1 3	365 ⅄	26·87	150
,, ,, (The Hermitage)	H. Padwick, Esq.	8	0 10	350 T	25·76	117
HAMPSHIRE.						
ISLE OF WIGHT.						
Ventnor (Consumption Hospital)	Mr. H. Sagar	5	1 0	75 T	23·18	134
Shanklin (Bondi)	A. Parbury, Esq.	5	1 0	150	25·26	...
D Sandown (Lake Hill)	W. E. Green, Esq	5	1 0	85	23·32	...
Brading	Rev. E. Summers	5	1 2	...	19·32	...
D Newport (Lugley House)	Rev. E. W. Watts	5	1 0	...	24·43	141
D Yarmouth (The Towers)	Ad Sir E Ommanney F R S	5	1 0	15	25·48	121
Ryde (Thornbrough)	Col. Clarke	5	1 0	143 T	23·80	...
D ,, (Town Hall)	F. Newman, Esq.	8	1 0	83 ⅄	21·54	135
Wootton (Fernhill)	F. Brodie, Esq.	8	0 8	118 T	22·75	...

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height above Ground. ft.	in.	Height above SeaLevel feet.	Depth of Rain. 1887 inches.	Days on which ·01 or more fell.
HAMPSHIRE—(*con.*)							
D†Osborne (Newbarn Cottage)	J. R. Mann, Esq.	8	0	8	172 ⅄	22·30	124
West Cowes (Holmwood)	C. T. Maw, Esq.	8	1	0	30 ?	22·60	142
Hurst Castle	The Meteor. Council	8	0	11	9	22·36	...
Bournemouth (Tregew)	AdlSirB.J.SulivanKCB	5	1	0	134 T	23·43	120
Christchurch (South Bourne)	Dr. Compton	5	1	0	91	20·90	125
D ,, (Mudeford)	F. H. D. Eyre, Esq.	5	0	3	15 L	21·55	143
D ,, (Kenilworth)	J. H. Bridgford, Esq.	5	1	2	100 ?	19·34	106
Portsmouth	TheRoy.Meteor.Society	5	1	0	20	20·98	127
D ,, (Closewood, Cosham)	O. Philpott, Esq.	5	0	9	125 T	21·81	124
D Havant (Farlington)	H. R. Smith, Esq., C.E.	5	1	0	77	19·26	134
,, (,,)M	,, ,, ,,	5	1	0	77	19·15	...
,,	,, ,, ,,	5	1	0	25	21·36	...
,,M	,, ,, ,,	5	1	0	25	21·49	...
D Emsworth (Redlands)	F. Jacomb Hood, Esq.	5	1	0	90 T	22·72	131
D Southampton (Cadland)	J. Laurie, Esq.	8	4	6	52 T	24·01	140
D ,, (Netley)	Late Prof. de Chaumont	8	0	5	37 ⅄	20·46	125
,, (Ordnance Surv. Off.)	Col. Sir C. Wilson, FRS.	5	1	0	79 ⅄	23·26	125
Horndean (St. Catherines)	Miss Barnes	8	1	7	400 T	26·18	153
Idsworth House	Mr. N. F. Fuller	5	1	0	300	27·28	...
D Southampton (Westend)	C. Purrott, Esq.	5	1	6	244 T	25·90	124
D* ,, (Highfield) *Snowdon*	Rev. H. Garrett	5	1	0	130 ⅄	22·58	137
,, (,,)M	,, ,, ,,	5	1	0	130 ⅄	23·01	...
† ,, (Red Lodge)M	R. C. Hankinson, Esq.	5	4	0	200 T	25·21	...
D Fordingbridge (Oaklands)	T. Westlake, Esq.	8	1	0	135 T	23·09	127
Bishops Waltham (Swanmore House)	W. H. Myers, Esq.	8	1	0	390 T	24·55	...
Fordingbridge (Wood Green)	H. Hinxman, Esq.	5	1	2	140 ⅄	22·12	...
Petersfield (Liss Place)	F. Coryton, Esq.	7	0	7	250 ⅄	25·57	...
D Alresford (Cheriton Rectory)	Rev. A. Orr	5	2	0	240	25·15	126
D ,, (Ropley)	Rev. T. Woodhouse	5	1	2	372 ⅄	23·97	133
D ,, (Ovington)	Rev. W. H. B. Stocker	5	5	1	225 T	24·05	143
,, (Arle-Bury)	Mrs. Wood	5	1	6	238 ⅄	23·99	113
D Alton (East Tisted Rectory)	Rev. F. Howlett	5	1	1	420 ⅄	28·08	134
D ,, (The Wakes, Selborne)	General Parr	5	5	3	400	27·48	110
D Winchester (Harestock)	Col. Knight	5	1	0	302 ⅄	22·71	133
D†Alresford (Swarraton Rectory)	Rev. W. L. W. Eyre	5	1	0	310 ⅄	23·61	128
Alton (East Worldham)	Rev. Dr. Fell	5	1	6	499 ⅄	22·59	...
,, (Thedden Grange)	J. G. Wood, Esq.	8	1	3	600 T	28·32	...
D† ,, (Ashdell)	F. Crowley, Esq.	8	3	6	433 ⅄	25·83	131
,, (Eagles Nest)	,, ,,	5	52	4	505	15·11	...
Micheldever (Northbrook)	J. A. Caird, Esq.	5	1	1	270 T	23·38	...
D Whitchurch (Long Parish)	C. Durnford, Esq.	...	...		...	21·33	154
,, (North Litchfield)	T. W. Styring, Esq.	5	0	10	...	19·57	...
Andover (The Knoll)	G. H. Westbury, Esq.	6	0	10	196 T	22·10	146
Tedworth House [Ludgershall]	Mr. G. Inglefield	8	1	8	357 T	22·30	121
D Crondall (Warren Corner)	G. Wilkin, Esq.	5	1	3	575 ⅄	24·21	134
Aldershot	D. T. Livesey, Esq.	5	1	0	250 ⅄	21·21	112
D Basingstoke (Chapel Hill)	G. Stephens, Esq.	5	1	0	328 T	23·91	142

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
HAMPSHIRE—(*con.*)						
†Rotherwick (Tylney Hall)	C. E. Harris, Esq.	5	0 8	330 T	21·44	...
Farnborough Grange	Mrs. Sher win	...	...	...	22·73	..
D Fleet (Claremont House)	Miss L. Pasley	8	2 0	280	26·07	131
D Basingstoke (Monk Sherborne)	Rev. Canon Willes	5	1 6	314 T	21·25	133
D† ,, (Sherborne St. John)	Rev. D. W. Chute	5	1 2	267 T	22·95	142
Kingsclere (Ramsdale)	Miss A. F. Fuller	5	1 0	341 R	22·43	124
Hartley Grange	W. Walkinshaw, Esq.	5	1 0	220 R	21·65	...
,, Wespall	Rev. J. C. Keate	8	0 9	233 R	19·42	...
Bramley	Rev. C. Eddy	8	0 9	230 T	20·35	...
D†Strathfield Turgiss	Rev. C. H. Griffith	5	3 0	200 R	20·14	150
†Heckfield Place	Mr. W. Wildsmith	8	1 0	262 T	20·02	112
BERKS.						
Newbury (Greenham)	Capt. J. Ward, R.N.	5	1 0	260 L	22·54	156
,, (Donnington Sq.)	W. J. Cowper, Esq.	5	4 0	286 T	22·68	144
D Wokingham (Wellington Coll.)	S. A. Saunder, Esq.	5	1 0	283 R	20·29	133
Hungerford (Denford Park)	General Cherry	5	1 2	430 T	22·50	147
Reading (Englefield)	R. Benyon, Esq.	5	1 1	...	21·51	115
D† ,, (Russell Street)	Dr. Workman	5	2 0	154 R	19·51	123
D ,, (Portland Place)	C. N. Pearson, Esq.	8	2 6	122	22·81	154
D ,, (Forbury Gardens)	A. W. Parry, Esq., C.E.	5	1 5	145 R	18·78	144
,, (East Thorpe)	A. Palmer, Esq.	5	3 0	157 T	20·49	123
D Newbury (Welford Park)	Mr. C. Ross	5	1 0	335 R	24·36	142
,, (,, ,,)	,, ,,	5	1 0	341 T	24·46	142
D Yattendon	A. Waterhouse, Esq.	5	1 0	445	20·08	144
D Lambourne (The Laburnums)	R. C. Mawley, Esq.	5	0 9	415 T	22·12	146
D Maidenhead (Lowood)	Major-Gen. Davies	8	1 0	...	20·30	129
D ,, (Cookham Vic.)	Rev. R. W. Rogers	5	1 3	90 T	19·32	133
Shrivenham (Ashbury Vic.)	Rev. H. Miller	5	1 0	479 R	20·84	...
D Wantage (Letcombe Regis)	S. W. Silver, Esq.	5	0 9	...	22·91	145
Wallingford Castle	J. Kirby Hedges, Esq.	5	0 9	175 R	18·62	115
Little Wittenham Rectory	Rev. Percy Burd	5	1 0	187 T	16·99	113
Faringdon (The Elms)	W. Dundas, Esq.	5	1 0	340 T	21·05	128

DIVISION III.—SOUTH MIDLAND COUNTIES.

HERTS.						
D Southgate (The Lawns)	G. A. Church, Esq.	5	0 6	240 T	20·01	152
Rickmansworth (Moor Park)	Rt. Hon. Lord Ebury	5	2 0	340	25·09	148
D†Watford (Watford House)	Dr. Brett	5	1 3	240 T	20·12	138
D† ,, (Oaklands)	E. Harrison, Esq.	5	5 6	273 T	22·83	137
Barnet (Gas Works)	*Registrar Gen. Ret.*	...	...	212	17·84	125
D Cheshunt Old Nurseries	Messrs. Paul & Son	5	1 0	92 T	19·16	132
,, College	Rev. Dr. Reynolds	5	1 1	94	18·05	...
D Broxbourne (Stafford House)	G. J. Newbery, Esq.	5	1 0	118 T	20·85	169
D St. Albans (The Grange)	J. Hopkinson, Esq.	5	1 0	380 R	19·84	162
† ,, (Gorhambury)	Rt. Hon. Earl Vernham	6	2 6	413 T	20·48	107
D Hemel Hempstead (Nash Mills)	Messrs. J Dickinson & Co.	12	3 9	237 T	20·44	140

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
HERTS—(*con.*)						
D GreatBerkhampstead (Rosebank)	E. Mawley, Esq.	8	1 0	401 ⅄	20·99	168
,, ,, (,,)M	,, ,, ...	8	1 0	401 ⅄	21·03	...
D ,, ,, (Gt.Gaddesden)	Rev.W.TyrwhittDrake	8	1 0	426 ⅄	20·32	141
Hertford (Bayfordbury)	W. C. Baker, Esq.....	8	1 2	250	19·06	154
D ,, ...	J. Woodhouse, Esq. ...	8	1 5	...	18·86	133
D Tring Vicarage	Rev. W. Quennell	5	1 0	442 T	23·61	143
D ,, (Cowroast)	H. Thomas, Esq., C.E..	10	4 2	345 L	21·55	112
Harpenden (Rothamstead)	Messrs.Lawes & Gilbert	5	0 9	420 T	19·87	150
,, (,,)	,, ,, ,, ...	8	0 9	420 T	19·77	147
D ,, (,,)	,, ,, ,, ...	72x87	0 9	420 T	21·05	172
Welwyn (Brocket Hall)	Rev. C. W. Harvey ...	8	1 0	...	18·37	...
D Ware (Red House).....	J. Francis, Esq., C.E..	12	3 0	114 T	18·02	133
D ,, (Fanham's Hall).....	Miss Joyce Croft	8	1 0	253 T	17·99	148
D Welwyn Rectory	Rev. Canon Wingfield.	5	0 4	228 T	19·08	144
,, (Danesbury)	A. M. Blake, Esq.	5	0 9	405 B	23·08	122
D ,, (Datchworth Rectory)..	Rev. J. Wardale	5	1 0	386 T	17·83	149
D Ware (Much Hadham).....	T. W. Mott, Esq.	5	1 0	222 B	19·21	140
D Kensworth [Dunstable]	Miss Jones	5	1 5	630 B	19·57	137
Stevenage (Knebworth Rectory).	Late Rev. F. G. Jenyns	5	1 0	391 ⅄	19·40	159
D Bennington Lodge.....	Rev. Dr. Parker.....	5	1 0	408 ⅄	18·86	162
D†Hitchin	W. Lucas, Esq.	5	2 1	238 ⅄	18·70	153
,, (High Down)	J. Pollard, Esq.	5	1 1	422 ⅄	18·96	144
D Buntingford (ThrockingRectory)	Rev. C. W. Harvey ...	5	1 0	484 T	18·26	150
Stevenage (Weston Manor)	M. R. Pryor, Esq.	5	0 7	480 T	19·21	143
D Baldock (Toggs Clothall)	BaldwinLatham,EsqCE	5	1 0	422 ⅄	18·05	140
D Royston (Therfield Rectory).....	Rev. J. G. Hale	5	4 3	500 ?	19·46	141
D† ,, ...	H. Wortham, Esq.....	8	0 6	269 ⅄	17·83	144
BUCKINGHAMSHIRE.						
D Slough (Langley)	R. H. Major, Esq.....	8	0 10	85 T	18·59	136
,, (,, Field) .. ..M	,, ,, ,, ...	5	0 10	85 T	17·96	...
D ,, (Upton Park)	G. Bentley, Esq.	5	3 0	90 ⅄	20·24	132
D Burnham (The Elms)	G. J. Williams, Esq....	5	3 0	182	17·70	100
D Cliveden	Mr. J. Ellam	8	0 6	...	19·82	139
Greenlands[Henley-on-Thames].	RtHn.W.H.Smith M.P.	8	1 3	116	20·74	113
Great Marlow.....	J. Ford, Esq.	8	1 3	...	20·77	101
,, ,, (Cromwell House).	E. Clark, Esq., E.C. ...	5	2 0	103	18·81	...
Aylesbury (Serena Terrace)	J. Copcutt, Esq.....	12	1 0	280 T	20·10	...
,, (Mentmore)	J. Smith, Esq.	5	1 6	...	19·29	...
D†Winslow (Addington Manor) ...	E. Hubbard, Esq., M.P.	8	1 0	309 ⅄	18·85	151
D†Buckingham (Adstock).....	J. E. S. Weston, Esq...	5	0 9	350 T	18·93	137
D Stony Stratford (Thornton)	Mr. W. Sturdy	5	1 6	...	19·41	103
Woburn Sands (Sandymount)...	C. P. Stuart, Esq.....	5	1 1	...	20·51	157
D Newport Pagnell	R. Littleboy, Esq.....	5	2 0	200 T	17·81	135
Olney (Filgrave Rectory).....	Rev. J. Tarver	8	0 8	280	19·97	...
OXFORD.						
D Whitchurch Rectory.....	Rev. J. Slatter	10	1 0	150 ⅄	19·86	129
Henley-on-Thames (Greys)	Rev. N. Pinder	5	1 8	370 T	20·60	...

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	OXFORD—(*con.*)						
D	Henley-on-Thames (Assenton)...	Mr. J. Ratty	5	1 0	281	21·85	130
D	Dorchester	Col. Blunt	5	2 0	...	16·27	101
D	Abingdon (Culham)	Rev. F. C. Clutterbuck	5	1 0	200 ⅄	19·12	127
D	Watlington (Pyrton).....	Cecil Hamersley, Esq..	5	1 0	351	18·53	137
	Abingdon (Nuneham Park)	E. W. Harcourt, Esq...	...	...	...	18·86	...
	Thame (Aston Rowant).....	T. Taylor, Esq.	8	1 0	385 ⅄	16·40	101
D	Oxford (Toot Baldon Vic.)	Rev. J. C. Ross	5	1 0	265	17·77	146
	Filkins [Lechlade]	Rev. H. C. Sturges ...	5	1 0	281 T	19·04	...
D†	Oxford (Mag. Coll. Laboratory).	E. Chapman, Esq.	5	1 0	186 ⅄	18·85	133
	,, (,, ,, ,,).	,, ,, ,, ...	5	33 11	223 ⅄	16·30	...
	,, (Radcliffe Observatory)..	E. J. Stone, Esq., F.R.S.	8	1 8	210 ⅄	19·06	138
D	,, (,, ,,)..	,, ,, ,,	11	2 4	210 ⅄	19·39	111
	,, (,, ,,)..	,, ,, ,,	10	22 0	230 ⅄	18·98	116
	,, (,, ,,)..	,, ,, ,,	10	112 0	320 ⅄	12·26	127
D	,, (St. Giles')	A. R. Tawney, Esq. ...	8	1 6	210 ⅄	19·67	143
D	,, (Norham Road).....	Rev. C. B. Mount	10	1 2	220 ?	21·59	122
D	,, (Elsfield)	H. Parsons, Esq.	6	1 0	330	19·06	159
D	Stanton St. John's...	Miss Thomson.....	8	1 0	340	18·79	142
	,, ,, ,, (Woodperry)..	J. Thomson, Esq.	6	1 0	399	19·81	146
	Witney (Ringwood Farm)	Mr. J. W. Abraham ...	5	5 0	...	20·85	132
	Chipping Norton (Kingham).....	E. Lockwood, Esq. ...	5	4 0	442	22·00	...
D	Bicester (Middleton Park)	Mr. B. Hope	5	2 6	380	20·45	148
	Steeple Aston.....	B. S. Ogle, Esq.	5	0 3	400 T	22·02	148
D	,, ,, (The Grange).....	Adl. Bradshaw, R.N, CB.	8	1 0	400 T	22·00	160
D	Banbury (Bloxham Grove)	Rev. G. Warriner	8	3 10	387 ⅄	20·39	123
D	,, (Cotefield, Bodicote) ...	T. E. Cobb, Esq.	8	2 0	383 ⅄	20·05	142
D	,, (Swalcliffe Park)	G. H. Norris, Esq.....	5	1 0	522 T	22·38	141
	NORTHAMPTON.						
	Brackley	Mr. E. Durran	8	6 10	400 T	19·65	126
D	Chacombe House [Banbury].....	Major H. C. Norris ...	5	1 0	470 ⅄	21·49	128
D	Thorpe Mandeville [Banbury]...	Mr. S. Baines.....	5	1 0	530	21·61	128
D	Towcester (Whittlebury)	W. S. Miller, Esq.....	5	1 6	350	22·30	154
D	,, ...	P. Phipps, Esq.	5	1 0	290	20·80	118
	,, (Easton Neston)	Mr. E. Slarke.....	8	1 0	340 T	21·63	129
D	Stoke Bruerne Rectory.....	Rev. W. Wilson.....	8	1 0	320 T	20·44	131
	Blisworth	F. Law, Esq.	...	...	...	20·49	107
D	Litchborough	E. Grant, Esq.	5	1 1	...	23·30	146
	Northampton (Preston Deanery).	F. Law, Esq.	5	1 0	...	17·39	128
	Daventry (Fawsley)	Lady Knightley	5	1 0	477 B	18·61	144
	Weedon (Floore)	E. G. Loder, Esq.	5	1 0	270	19·77	131
D	Castle Ashby	R. G. Scriven, Esq. ...	5	1 0	263 ⅄	18·87	137
D	Northampton (Little Houghton).	Mr. J. Brawn.....	5	2 4	...	17·43	113
D	,, (Coton Mill)	G. S. Eunson, Esq. ...	5	1 0	360	20·57	141
D	,, (Agnes Road) ...	F. Law, Esq.	5	5 0	245 T	17·93	140
	,, (The Holly's).....	Alderman Macquire ...	8	1 6	232	19·84	...
D	,, (Hazlewood Road)	H. Terry, Esq.	5	5 0	253	17·75	120
D	,, (Gold Street)	Mr. S. Law.....	5	6 6	230 ⅄	17·86	134

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	NORTHAMPTON—(*con.*)						
D	Great Brington (Althorp House)	C. S. Groom, Esq.	8	3 10	310 ⅄	18·92	137
D	Pitsford (Sedgebrooke)	C. A. Markham, Esq....	5	1 0	311 ⅄	18·84	147
	,, ,, ... M	,, ,, ,, ...	5	1 0	311 ⅄	18·80	...
D	Daventry (Waterloo).....	F. F. Rodhouse, Esq...	5	1 3	436 ⅄	20·51	154
	Earls Barton Vicarage	Rev. R. R. Cobbold ...	...	...	...	18·86	157
D	Holdenby Rectory	Mr. C. Bond	5	1 6	...	18·84	161
D	Wellingborough (Swanspool) ...	N. P. Sharman, Esq. ...	5	0 2	155	19·54	161
D	,, (Croyland Abbey)	E. Sharman, Esq.	5	0 3	...	19·80	154
D	Thrapstone (Hargrave)	J. L. Baker, Esq.	5	1 0	219 ⅄	17·45	110
	Hazelbeach Hill.....	Mrs. Pell.....	5	3 0	566 T	19·11	122
D	Kettering	J. Wallis, Esq.	8	1 3	300 B	17·60	138
D	,, ...	C. W. Lane, Esq.	5	0 8	280	17·33	157
	Rothwell.....	J. More, Esq., M.D. ...	12	1 2	300	19·29	123
	Oundle (Pilton Rectory)	Rev. F. G. Hodgson ...	5	1 0	...	17·29	149
D	,, (Talbot Hotel)	Baldwin Latham Esq CE	5	1 0	115	17·78	140
D	Rockingham Castle	Mr. H. Watt	5	3 0	400 L	18·36	107
D	Peterborough (Springfield Ho.)..	J. Whitwell, Esq.	9	2 6	50 L	14·77	105
D	Easton [Stamford].....	Mr. H. Watkins	5	0 11	271 T	15·05	142
D	Maxey Vic. [Market Deeping]...	Rev. W. D. Sweeting...	5	1 0	32 ⅄	14·54	158
	,, ,, [,, ,,] M	,, ,, ,, ...	5	1 0	32 ⅄	14·66	...
	HUNTS.						
D	St. Neots (Tetworth Hall)	Mrs. Kaye	5	0 8	190 ⅄	17·08	151
D	Alconbury	Rev. R. Conway.....	5	1 0	...	14·36	134
	Wistow	Rev. T. Woodruff	5	1 1	...	13·74	...
	Whittlesea Mere	R. Lunn, Esq.	8	1 0	...	14·45	150
	BEDFORD.						
	Luton	W. H. Leete, Esq.....	5	1 0	344 T	19·24	142
	Ampthill (Silsoe)	H. Trethewy, Esq.....	5	1 0	214 T	18·43	160
	,, (Wrest Park)	Mr. G. Ford	5	1 1	...	17·55	...
D†	Aspley Guise (Oaklands)	E. E. Dymond, Esq. ...	5	1 1	410 T	17·52	146
D	Stotfold [Baldock].....	Dr. Swaine	5	1 0	220	17·54	153
	Ampthill.....	Mr. J. Brown	5	1 0	313 T	17·44	148
	Woburn (Hulcote Rectory)	Rev. B. Chernocke Smith	5	1 0	310	17·98	...
D	Ampthill (Haynes Park)	F. J. Thynne, Esq. ...	5	2 8	285 ⅄	17·81	151
	Biggleswade (Old Warden)	Mr. G. R. Allis	8	1 2	...	16·76	120
	,, ...	C. T. Newbery, Esq. ...	5	28 0	130 T	16·56	...
D	Potton (Wrestlingworth)	H. J. King, Esq.	5	1 0	...	15·75	146
	Cardington	Mr. J. McLaren	8	0 0	106	16·60	...
D	,, ...(*Staff gauge*)	,, ,, ...	12	3 6	109	15·92	119
D	Sandy Rectory	Rev. J. Richardson ...	5	0 7	...	15·22	111
D	,, (The Lodge)	Rt. Hn. A. W. Peel, M.P.	5	1 0	...	14·89	124
	Bedford	D. Robie, Esq.	5	0 8	112 T	15·53	...
	,, (Clapham Park)	J. Howard, Esq.....	8	1 0	220 ⅄	15·80	147
	Tempsford Hall	Col. W. Stuart	5	0 9	80 T	15·82	141
	Bedford (Milton Ernest)	F. Newbery, Esq.	5	5 0	130 ?	15·65	103

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge			Depth of Rain.	Days on which ·01 or more fell.
			Diameter	Height Above Ground	Height Above SeaLevel	1887	
				ft. in.	feet.	inches.	
	CAMBRIDGE.						
D	Odsey Grange No. 2 [Royston]	H. G. Fordham, Esq.	5	1 0	263 ⅄	15·46	158
D	,, ,, No. 1 [,,]	,, ,, ,,	5	1 0	263 ⅄	15·84	160
D†	Guilden Morden [,,]	J. G. Johnson, Esq.	5	1 2	106 ⅄	15·98	130
	Trumpington	F. Parsons, Esq.	6	1 0	...	16·11	138
D	Granchester Mill	J. Nutter, Esq.	5	5 0	31 ⅄	15·46	174
D	Cambridge (Fulbourn Asylum)	G. E. Crallan, Esq.	5	0 10	70 ⅄	18·01	126
D	,, (W.W.Cherryhinton)	W. W. Gray, Esq., C.E.	5	1 0	35 ⅄	16·30	176
D	,, (Beech House)	J. Nutter, Esq.	8	4 0	40 ⅄	15·35	162
D	,, (Sidney Street)	Mr. W. E. Pain	8	60 0	92 ⅄	13·26	168
	,, (Trinity College)	J.W.Glaisher, Esq.FRS	8	0 6	40	15·17	154
	Hardwicke	Rev. J. S. Brown	5	0 7	...	17·67	105
D†	Cambridge Observatory	Professor Adams, F.R.S.	5	1 0	84 ⅄	15·78	148
D	,, ,,	,, ,, ,,	8	1 0	84 ⅄	15·68	148
	Quy Hall	Mrs. Francis	5	0 5	...	15·87	160
	Papworth Hall	Rev. E. Cheere	5	1 0	158 T	14·76	130
D	Ely (Stretham)	Mr. J. Housley	9	4 9	13 ⅄	14·63	142
D	,, (,, Ferry)	Mr. C. Wright, Junr.	8	5 0	...	14·06	133
D	,, (Littleport Vicarage)	Rev. Canon Hopkins	5	1 0	68 T	14·65	150
D	Chatteris (Aylesby House)	A. H. Ruston, Esq.	8	0 6	45 ?	15·67	124
D	,, (The Priory)	H. F. Fryer, Esq.	5	0 5	45	15·58	131
	,, (Slade Farm)	Mr. T. Triplow	8	13 0	44 ⅄	14·49	...
	,, (Horseway Lock)	R. Lunn, Esq.	...	...	...	?12·72	139
	March	,, ,,	...	...	...	15·92	...
	Stanground Sluice	,, ,,	8	1 0	..	12·91	...
*	March (Stags Holt)	W. C. Little, Esq.	5	1 0	11 T	16·15	...
	Upwell (Marmont Priory Lock)	R. Lunn, Esq.	8	1 0	...	15·27	163
D	,, (Euximoor House)	H. West, Esq.	5	0 8	15 ?	16·34	134
D	Thorney (Wryde House)	S. Egar, Esq.	9	2 3	12 L	14 22	...
	Wisbech (Coldham Hall, Elm)	H. J. Little, Esq.	5	1 0	15	16·06	118
D	,, (Bank House)	A. Peckover, Esq.	8	0 8	6	17·15	147

DIVISION IV.—EASTERN COUNTIES.

	ESSEX.						
D	Shoeburyness	The Asst. Super. Expts.	8	7 3	18	15·05	145
	Southend (Avenue Road)	C. J. Holthouse, Esq.	5	3 0	110	17·43	132
D	Romford (North Ockendon Rect.)	Rev. R. T. Crawley	5	1 6	100 T	16·78	125
D	Ilford, Little	Rev. A. Shadwell	10	1 0	27 T	17·23	123
	,, (Great Gearies)	Mr. J. Douglas	5	1 0	120	20·07	134
D	Woodford (The Harts)	Miss C. Spicer	5	3 6	203 T	18·00	141
	,, (Hagger Lane)	W.B.Bryan, Esq., C.E.	8	1 0	176 ⅄	15·15	...
	Brentwood (Sawyer's Hall Farm)	Rogers Field, Esq., C.E.	5	1 0	270 T	20·54	105
D	,, (Dudbrook House)	Mr. W. Dellar	8	1 3	...	23·60	122
	Ingatestone	The Meteor. Council	...	...	...	20·22	146
	Maldon (Norton Hall)	C. Clarke, Esq.	5	2 6	130 T	16·25	107
	Epping (The Hemnalls)	J. Nicholl, Esq.	8	0 8	345	23·28	125

DIVISION IV.—EASTERN COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which .01 or more fell
				ft. in.	feet.	inches.	
	ESSEX—(*con.*)						
	Bradwell-on-Sea (Bradwell Hall)	J.C. Chillingworth, Esq.	5	1 1	...	16·04	128
	,, ,, (Down Hall)	R. Page, Esq.	5	1 0	20	15 29	103
	Chelmsford (Great Baddow)	H. Corder, Esq.	5	3 6	...	19·56	...
D	,, (Writtle)	E. Rosling, Esq.	5	1 0	140 T	16·72	133
	,, (High Street)	F. Chancellor, Esq.	8	1 0	86 ⅄	16·99	125
	,, (Roxwell)	R. W. Christy, Esq.	5	1 0	176 T	17·53	114
D	Harlow (Sheering)	Rev. Canon Hill	5	1 0	214 ⅄	18·66	135
	Witham (Little Braxted Hall)	J. Taber, Esq.	5	1 0	50	16·76	134
	,, (Rivenhall)	Rev. F. B. H. Bridges	5	1 0	138 T	15·87	...
D	Dunmow (High Roding)	Rev. E. Maxwell	5	1 0	252 T	18·02	155
	Great Bentley (The Lodge)	Capt. W. Delf	6	0 6	150	16·94	...
D	Colchester	H. Goodyear, Esq.	8	4 0	68 ⅄	17·25	153
	,, (Surrey Villa)	J. C. Hopwood, Esq.	5	1 0	...	18·31	128
	Braintree (Bocking Place)	S. Courtauld, Esq.	8	2 0	212 ⅄	19·17	146
	Dunmow (Saling Grove)	J. N. Harrison, Esq.	8	1 0	290	15·96	...
	Earls Colne (Chalkney House)	H. F. Hills, Esq.	5	1 0	180 T	18·32	118
D	Manningtree (Lawford)	O. Bendall, Esq.	5	1 0	...	17·56	159
D	Dedham (The Rookery)	W. H. Penrose, Esq.	8	1 0	43	18·51	147
D	Saffron Walden (Newport)	Rev. G. F. Tamplin	5	4 0	220 T	19·79	140
D	,, ,,	J. G. Bellingham, Esq.	5	1 0	179 ⅄	18·69	153
	SUFFOLK.						
	Nayland (Tendring Hall)	Mr. G. L. Rushmore	8	0 8	135 ⅄	19·04	...
	Stutton (Alton Hall)	J. South, Esq.	5	1 2	...	17·25	...
D	Ipswich (Orwell Park)	Mr. J. Wallis	8	1 0	60 ⅄	21·10	151
D	,, (Belstead Hall)	A. Harwood, Esq.	8	9 0	120 ⅄	18·08	109
D	Sudbury	E. Ransom, Esq.	5	1 7	93 T	18·47	150
	Ipswich (Bishop's Hill)	G.A. Biddell, Esq., C.E.	5	1 0	104 ⅄	19·46	...
	,, (Playford)	M. Biddell, Esq.	5	2 6	120 T	19·19	...
	Lavenham Hall	W. Biddell, Esq., M.P.	5	1 11	220?	19·17	125
D	Woodbridge (Bank House)	S. Alexander, Esq.	5	1 0	...	22·53	143
	,, (The Cedars, Melton)	W. P. T. Phillips, Esq.	5	...	...	20·75	...
D	Rendlesham Hall	Rt Hon Lrd. Rendlesham	5	1 9	88 ⅄	20·93	137
D	Haverhill (Great Thurlow)	Mr. A. Boa	5	1 0	241 T	16·75	124
	Clare (Stansfield)	J. Slater, Esq.	5	1 0	...	17·94	...
	Ash Bocking Vicarage	Rev. M. B. Cowell	5	7 3	231 T	17·30	146
D	Aldborough (Aldringham Ho.)	F. Garrett, Esq.	8	4 5	50 B	20·11	177
D	Stowmarket (Wetherden Rec.)	Rev. C. J. Goodhart	8	0 6	185 ⅄	18·18	141
D	Bury St. Edmunds (Drinkstone Pk)	Mr. G. Palmer	8	1 2	220 T	16·81	142
D	Leiston (Alma Cottage)	Mrs. Peck	8	3 10	58 T	19·67	152
D	Framlingham (Mount Pleasant)	Mr. R. Whitehead	5	1 2	...	19·63	116
D	Bury St. Edmunds	Mr. F. Summers	...	...	...	14·40	136
†	,, ,, (Westley)	R. Burrell, Esq.	5	1 0	226 ⅄	18·86	...
	,, ,, (Hengrave)	Mr. W. Nichol	5	1 2	...	17·37	...
D†	,, ,, (Culford)	Mr. J. Smith	5	1 6	100	19·00	151
D	Ixworth (Walsham-le-Willows)	Miss M. C. Martineau	5	1 0	...	18·96	152
†	,, (Barningham)	W. Lingwood, Esq.	8	1 0	136 T	16·84	...
D	Weybread Vic. [Harleston]	Rev. J. H. White	8	1 1	159	16·39	136

DIVISION IV.—EASTERN COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground.	Rain Gauge. Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	SUFFOLK—(*con.*)						
	Beccles (Sotterley Hall)	Col. St. J. Barne, M.P.	5	0 11	...	21·12	168
	†Lowestoft (Carlton Colville)	G. Edwards, Esq., C.E.	8	0 9	6 T	19·41	...
D	,, (Bryn-y-Môr)	S. H. Miller, Esq.	5	1 0	86	18·60	167
	,, (,, ,,) M	,, ,, ,,	8	1 0	86	18·29	...
	,, (Somerleyton Rect.)	Rev. Canon Du Port	8	1 0	50	19·95	...
	NORFOLK.						
D	Diss	T. E. Amyot, Esq.	5	1 0	96	19·32	140
D	Harleston (Rushall Vicarage)	Rev. C. Gape	5	1 1	117 T	17·97	159
D	†Geldeston [Beccles]	E. T. Dowson, Esq.	5	1 0	38 T	18·13	179
	,, [,,] M	,, ,, ,,	8	1 0	38 T	18·09	...
D	,, [,,]	R. Dashwood, Esq.	5	1 0	49 T	17·59	155
	Ellingham [,,]	H. Youngman, Esq.	5	3 0	...	18·28	...
	Long Stratton (Boyland Hall)	Mr. M. Riches	5	0 3	...	22·40	...
	,, ,, (Hapton)	Rev. Canon Du Port	...	...	...	21·84	...
D	Loddon (Bergh Apton)	Rev. T. F. Lloyd	8	2 4	...	19·38	147
	Mulbarton	Rev. R. G. Lucas	5	1 4	...	21·28	133
	Watton	Rev. Canon Du Port	...	...	...	20·21	...
D	Hingham	,, ,, ,,	...	...	...	23·53	153
D	Downham Market (W. Dereham)	Mr. C. Blanchfield	5	0 11	20	16·96	172
D	Denver	Rev. Canon Du Port	8	1 2	80 T	17·04	143
D	Stoke Ferry (Wereham)	,, ,, ,,	5	6 0	66	17·65	144
	Wymondham (Hethersett)	,, ,, ,,	...	...	...	24·59	...
D	Downham (Crimplesham)	W. S. Horn, Esq.	5	1 0	110 T	16·91	156
	Swaffham (Pickenham Hall)	E. A. Applewhaite Esq.	5	1 0	104 T	21·32	156
	Outwell Sluice	R. Lunn, Esq.	9	...	16	14·70	111
	Yarmouth (Sailors' Home)	The Meteor. Council	8	4 0	12	20·12	...
D	,, (Halvergate Hall)	Rev. Canon Du Port	5	3 3	48 T	18·60	122
D	Norwich (Carrow House)	J. J. Colman, Esq., M.P.	5	4 0	30	20·00	...
†	,, (Thorpe High House)	Rev. Canon Du Port	5	1 0	137 T	21·45	161
D	,, (,,)	A. W. Preston, Esq.	5	6 0	78 T	20·52	176
	,, (St. Catherine's Close)	The late Mrs. Evans	5	2 3	120	20·73	140
D	,, (Essex Street)	F. Dix, Esq.	9	2 6	85 T	20·05	157
D	,, (Heigham)	A. W. Preston, Esq.	5	1 0	34 T	20·34	176
	†Acle	Rev. R. W. Kennion	8	0 9	40	20·91	116
D	*Swaffham (Grammar School)	C. J. Drury, Esq.	5	1 10	242 T	21·18	161
D	,,	W. H. Plowright, Esq.	5	5 0	250	19·64	149
D	Mattishall	Mrs. Taylor	...	...	...	21·21	151
D	Costessey	A. J. Culley, Esq.	5	1 0	...	22·36	133
D	Sprowston (Oak Lodge)	T. Cozens Hardy, Esq.	5	1 0	101 T	21·10	165
D	South Walsham	Rev. Canon Du Port	...	...	...	21·25	149
	East Dereham	G. H. Cooper, Esq.	8	3 0	161	21·80	118
	,, ,,	Rev. Canon Du Port	...	...	...	20·24	...
D	Swaffham (Dunham)	,, ,, ,,	5	1 1	320	21·98	161
D	South Walsham (Oby)	,, ,, ,,	...	...	...	20·30	176
	Salhouse	,, ,, ,,	...	...	...	22·36	...
	Wiggenhall (Outlet Syphons)	R. Lunn, Esq.	8	...	...	15·84	117
D	Terrington	J. T. Seccombe, Esq, M.D	5	1 0	15 T	17·38	120

DIVISION IV.—EASTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
NORFOLK—(*con.*)						
Felthorpe	Mrs. Bourchier	5	1 1	75	21·57	117
Cawston	Rev. T. H. Marsh	5	1 0	135 T	23·53	180
Aylsham (Woodgate)	B. J. W. Purdy, Esq.	5	1 0	100 T	22·40	156
North Walsham (Worstead)	Mrs. Cooke	5	0 9	...	21·60	133
D ,, ,, (Dilham)	Rev. Canon Du Port	...	...	...	21·83	193
†Hillington Rectory	Rev. H. Ffolkes	8	1 0	89 ⅄	20·37	172
D† ,, School	,, ,,	5	3 6	94 ⅄	20·33	172
Fakenham (Pensthorpe)	Rev. Canon Du Port	...	...	...	21·37	...
D ,, (Cranmer Hall)	Sir Lawrence Jones, Bt.	8	2 6	160	24·78	158
North Walsham (Knapton)	Rev. Canon Du Port	...	...	...	22·39	...
D Cromer (Northrepps)	,, ,, ,,	...	...	...	23·10	180
Holt (Letheringsett Hall)	W. Cozens Hardy, Esq.	8	1 0	...	21·07	111
D Cromer	J. Cooper, Esq.	5	1 0	100	23·59	128
Holkham M	J. Davidson, Esq.	8	1 0	35	18·14	...
Hunstanton Hall	Mr. Nisbet	11	3 8	60 ⅄	18·81	...

DIVISION V.—SOUTH WESTERN COUNTIES.

WILTS.						
D Landford	J. R. Wigram, Esq.	5	1 10	167 ⅄	20·03	157
D Donhead St. Mary (Charlton Ho.)	Col. G. Best	5	0 7	514	26·50	141
D Broad Chalke	C. E. B. Hewitt, Esq.	8	0 8	315	23·12	135
D†Salisbury (Alderbury)	Rev. R. S. Hutchings	5	0 8	263 ⅄	20·14	142
† ,, (West Dean)	Rev. W. L. W. Eyre	5	1 0	137 B	20·99	144
D ,, (Britford)	C. E. B. Hewitt, Esq.	5	1 0	...	21·82	126
D ,,	W. Hussey, Esq.	5	1 5	150 T	21·65	145
D ,, (Wilton House)	C. E. B. Hewitt, Esq.	8	0 5	180 ⅄	21·13	145
D Mere	,, ,, ,,	5	1 0	...	25·36	139
D ,, Down	,, ,, ,,	5	1 0	600?	25·44	174
D Winterslow	,, ,, ,,	5	1 0	470	19·53	142
D Warminster (Rye Hill)	,, ,, ,,	8	2 0	450	29·01	153
D Amesbury	,, ,, ,,	5	1 0	...	19·18	143
Salisbury Plain (Chitterne House)	R. Hayward, Esq.	11	4 0	319 T	21·66	141
Warminster	T. Cruse, Esq.	5	1 0	387 ⅄	26·12	149
D ,, (Downside)	C. E. B. Hewitt, Esq.	8	4 0	393	26·96	167
D Amesbury (Figheldean)	,, ,, ,,	5	1 0	260	21·27	142
Ludgershall	Rev. W. H. Awdry	8	0 8	422 ⅄	23·58	149
D ,, (Everleigh)	C. E. B. Hewitt, Esq.	5	1 2	590	23·91	151
D ,, (Collingbourne Kingston)	Baldwin Latham Esq CE	5	1 0	470 ⅄	24·78	157
D Market Lavington	C. E. B. Hewitt, Esq.	5	1 0	...	19·49	147
Trowbridge (Steeple Ashton Vic.)	Rev. A. O. Hartley	5	1 0	240 T	21·29	148
D ,, (Wingfield)	T. H. Clark, Esq.	5	1 0	293 T	22·57	140
D ,,	C. E. B. Hewitt, Esq.	5	1 2	...	22·01	151
D ,, (Rodney House)	W. J. Mann, Esq.	5	1 1	140	22·26	150
Bradford	Mrs. Spencer	5	1 0	...	22·77	128
D ,,	C. E. B. Hewitt, Esq.	5	1 0	...	22·65	140
D ,, (Holt)	,, ,, ,,	...	...	...	21·75	174

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which 0·01 or more fell.
			ft. in.	feet.	inches.	
WILTS—(*con.*)						
Devizes (Southgate House)	B. H. Cunnington, Esq.	8	1 0	436 T	23·85	168
D Burbage (Wolfhall)	C. E. B. Hewitt, Esq...	8	1 0	546	25·99	127
D Shalbourne	,, ,, ,, ...	5	1 0	...	24·81	143
D Bishop's Cannings	Rev. C. W. Hony	5	1 0	446 ⅄	22·94	146
D Buttermere	C. E. B. Hewitt, Esq...	5	4 9	...	25·63	172
D Devizes (Shepherd's Shore)	,, ,, ,, ...	5	1 6	555	21·75	149
D Chippenham (Lacock)	Miss Awdry	5	0 11	250	20·98	158
D Marlborough	C. E. B. Hewitt, Esq...	...	...	...	23·74	163
,, (Mildenhall)	Rev. C. Soames	5	1 0	456	23·00	135
D Corsham	C. E. B. Hewitt, Esq...	5	1 0	350 ?	22·50	144
D Calne (High Street)	Mr. H. Wilkins, Junr.	5	3 6	244	20·79	155
D ,, (Compton Bassett)	C. E. B. Hewitt, Esq...	8	1 0	400 T	21·49	167
D Ramsbury	,, ,, ,, ...	5	1 0	411	22·75	165
D Ogbourne Maizy	,, ,, ,, ...	5	1 0	...	23·85	117
D Broad Hinton	Rev. J. A. Lloyd	5	3 0	633 T	23·30	149
D Wootton Bassett	C. E. B. Hewitt, Esq...	5	1 0	...	23·50	153
D Swindon, New	F. G. O'Conor, Esq. ...	8	0 4	378	21·70	147
,, (Pen Hill)	H. Arkell, Esq.	5	0 10	400	19·71	...
D Malmesbury (Charlton Cott.)	C. E. B. Hewitt, Esq...	...	1 0	...	23·69	131
DORSET.						
Swanage (The Bank)	J. Andrews, Esq.	5	1 0	8	22·25	...
Weymouth	The Roy. Meteor. Soc...	5	1 0	80	21·57	133
D ,, (Langton Herring)	Rev. C. H. Gosset	8	1 0	200 ?	23·35	141
† ,, (Osmington Lodge)	Col. Hall	5	1 0	225 B	24·62	155
D Corfe Castle (Creech Grange)	Mr. Tyler	5	1 0	180	29·02	123
†Abbotsbury	Mr. A. Dight	5	3 6	150	25·14	...
D Wareham (Castle Gardens)	S. W. Bennett, Esq. ...	5	3 2	15	20·88	126
,, (Trigon)	D. Sturdy, Esq.	8	1 0	...	23·73	...
Little Bredy	Rev. R. R. Meadows...	5	1 0	335 ?	30·13	130
D*Westbourne [Bournemouth]	E. B. K. Welch, Esq..	5	1 0	137 T	22·21	130
Poole	F. Styring, Esq.	5	1 1	6	19·96	112
D ,, (The Yarrells)	,, ,, ,, ...	5	1 1	40	20·58	125
D ,, (Parkstone)	R. H. Barnes, Esq. ...	5	1 0	198 L	21·20	145
D Lyme Regis	M. C. Preston, Esq. ...	5	1 1	...	22·23	138
Beer Regis (Bloxworth Rectory)	Rev. O. P. Cambridge..	8	...	...	23·65	...
,, ,, (,,)	Col. Cambridge	5	2 0	100	23·39	...
D Beaminster Vicarage	Rev. Canon Codd	5	1 0	...	28·26	151
D Blandford (Whatcombe)	J. Mansel-Pleydell, Esq.	5	0 4	270	25·96	114
,, (Tarrant Keynston)	G. Galpin, Esq.	5	1 0	200 ?	24·16	...
D Cerne Abbas (Melbury)	Mr. T. C. Elliott	12	2 9	...	26·02	119
D Beaminster (Chedington)	Miss Creed	5	1 6	604 T	30·81	154
D*Wimborne Minster (Chalbury)	Rev. G. H. Billington..	5	2 0	338 ⅄	22·46	125
D Shaftesbury	T. Ackland, Esq.	5	1 4	722 ⅄	24·70	135
D Gillingham	S. H. Stephens, Esq....	5	1 2	244 T	24·13	141

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
DEVON.						
Salcombe (Prawle Point)	The Meteor. Council	8	1 9	350	20·31	...
D ,, (The Molt)	J. Drew, Esq.	8	1 3	61 L	26·78	128
† Bolt Tail	G. Balkwill, Jun., Esq.	5	2 0	297	25·20	...
Kingsbridge	W. H. Webb, Esq.	5	1 0	84	30·11	152
D ,, (Ringmore)	BaldwinLathamEsq CE	5	1 0	147	24·84	147
D Plymouth (Hobart Terrace)	J. Merrifield, Esq. LL.D.	8	9 2	130 ⅄	28·94	144
D*Devonport (Rowdens Res.)	H. Francis, Esq., C.E.	5	1 0	201 ⅄	26·32	152
Brixham (Lupton)	Mr. J. Gibson	5	2 6	220 T	23·63	103
Plympton (Hemerdon)	Rev. G. L. Woollcombe	5	3 0	360	33·26	...
D Totnes	T. H. Edmonds, Esq.	5	1 0	94 L	32·49	140
D Paignton (Madeira Cottage)	P. Symons, Esq.	5	8 0	20 T	24·30	136
D ,, (Rosenville)	F. J. Greenfield, Esq.	5	7 0	28	27·52	145
Bere Ferrers	Rev. F. T. W. Wintle.	5	1 0	100	32·16	152
D Torquay (Strand)	C. Shapley, Esq.	5	4 0	40 L	20·60	126
,, (Grey's Lodge)	Col. J. R. Currie	5	1 0	261	25·80	146
D† ,, (Lamorna)	W. Pengelly, Esq. F.R.S	5	1 0	200 ⅄	23·46	156
D* ,, (Castle College)	C. J. Harland, Esq.	5	1 0	167 ⅄	23·75	140
D† ,, (Babbacombe) *Snowdon*	E. E. Glyde, Esq.	5	1 0	294 ⅄	24·56	155
D ,, (Watcombe Park)	Col. C. Ichabod Wright	5	1 0	500 T	25·52	152
D Buckfastleigh (Bossel Park)	J. Hamlyn, Esq.	5	1 0	250	39·05	114
D Walkhampton (Meavy)	A. P. Prowse, Esq.	5	2 0	750 B	31·81	137
* ,, (Lowery)	H. Francis, Esq., C.E	8	1 0	900 T	40·10	...
D ,, (,,)	,, ,, ,,	5	1 0	890	37·74	150
D Ashburton (Holne Vicarage)	Rev. J. Gill	5	1 0	650 B	44·78	160
D† ,, (Druid House)	Fabyan Amery, Esq.	5	1 0	572 T	36·86	142
D Kingsteignton (Teignbridge Ho.)	F. H. Plumptre, Esq.	5	1 0	27 ⅄	24·84	126
†Teignmouth (Lower Reservoir)	W. C. Lake, Esq. M.D.	5	1 0	138 L	25·21	123
,, (Marine Villa)	W. B. Harris, Esq.	5	1 0	18	22·07	136
D ,, (Woodway)	G. W. Ormerod, Esq.	5	1 0	235	20·98	138
D†Tavistock (Public Library)	Mr. R. Westington	8	20 0	283 T	31·46	153
D ,, (West Street)	H. A. Gibson, Esq	5	1 1	272	38·12	164
D†Ilsington (Middlecott House)	Alfred Lyon, Esq.	9	3 6	649 T	33·18	...
Princetown	Royal Meteor. Soc.	5	...	1395	54·02	161
,, (Cowsic Valley)	H. Francis, Esq., C.E.	8	1 6	1352 T	49·50	...
D Ashburton (Cator Court)	F. H. Firth, Esq.	5	1 3	1071 T	44·30	167
,, (Widecombe Vic.)	Rev. J. Williams	5	1 0	810	38·68	...
D Chudleigh (Ideford)	Rev. G. J. Ford	4	1 0	300 ⅄	23·44	147
D Bovey Tracey (Colehays)	Mr. E. Underdown	5	1 3	..	31·59	140
D Dawlish	Capt. Strangways, R.N.	5	1 6	120 B	22·79	146
†Milton Abbot (Endsleigh)	Mr. W. Prout	5	0 8	180 ?	34·20	...
D Chudleigh (Torquay Waterworks)	T. S. Weeks, Esq., C.E.	8	4 0	718 ⅄	27·54	143
Budleigh Salterton	R. Walker Esq.	5	4 0	80	21·84	147
,, ,, (E. Budleigh)	R. H. Lipscomb, Esq.	5	1 0	70 ⅄	24·69	140
D Starcross (Powderham Castle)	J. Drew, Esq.	8	2 0	57 L	23·82	111
Coryton (Lew Down)	Mr. T. M. Symons	5	4 0	445	30·75	139
D Polapit Tamar [Launceston]	E. Coode, Esq.	5	2 9	300	27·11	169
D Chagford (Batworthy)	F. N. Budd, Esq.	8	1 0	1250 ?	45·83	161
†Sidmouth (Sidmount)	The Roy. Meteor. Society	5	1 0	149 ⅄	24·86	151

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above SeaLevel feet.	Depth of Rain. 1837 inches.	Days on which ·01 or more fell.
DEVON—(*con.*)							
D Rousdon [Lyme Regis]	C. E. Peek, Esq.	5	1	6	524 T	25·33	147
,, [,, ,,] M	,, ,, ,,	3	1	0	524 T	23·93	...
D† Clevelands [Lyme Regis]	E. L. Ames, Esq.	5	1	11	465 T	25·32	142
Exeter (St. Leonard Road)	Miss M. E. Clark	5	1	0	110	22·13	...
D† ,, (Devon & Exet. Inst.)	Mr. E. Parfitt	6	13	7	155 T	22·18	102
D ,, (Hospital)	Rev. P. H. Newnham	5	1	0	112 T	21·76	145
D ,, (Manston Terrace)	Miss Dymond	5	1	0	166 T	20·36	132
D† Okehampton (Oaklands)	W. H. Holley, Esq.	5	1	0	521 T	33·87	151
Axminster (Great Trill)	F. J. Sparks, Esq.	5	1	0	300 T	23·87	...
D† Exeter (Brampford Speke)	Miss Gamlen	5	1	0	140 T	23·49	144
D Axminster (Furzebrook)	A. P. Rogers, Esq.	5	1	5	128 T	22·28	124
D ,,	Mr. S. Griffin	5	3	6	138 T	25·64	107
D Hatherleigh (Broomford Manor)	Mr. W. Mortimore	5	1	4	484 T	30·08	150
D Bradninch Vicarage	Rev. W. A. Strong	5	1	0	312 B	24·47	141
,, ,,	,, ,,	5	4	0	300	23·64	141
Hatherleigh (Winsford)	Mr. A. Muirhead	5	1	3	600	24·47	...
,, (Ash)	J. S. Osbourne, Esq.	5	1	1	332 T	23·02	...
D Cullompton	T. Turner, Esq.	5	1	0	202 T	24·39	147
D Petrockstow (Heanton Satchville)	Mr. A. Eames	5	1	0	332 T	28·71	149
Tiverton (Cove)	W. N. Row, Esq.	11	0	10	450 ?	28·08	...
,, (Rose Bank)	H. B. Sharland, Esq.	5	1	0	280	25·92	143
D ,, (Broomhill)	Mrs. Dickinson	5	1	0	380	26·98	141
,, (Ivy Place, S. Peter's St.)	H. S. Gill, Esq.	5	6	0	270	25·42	145
D Torrington (Beare Ho., Langtree)	Mr. J. Snow	5	1	0	451 T	32·85	161
D ,, (Stevenstone)	R. H. Lipscomb, Esq.	5	1	0	450	29·67	163
,, (Little Silver)	,, ,, ,,	5	1	0	395 T	29·35	154
D Bampton (Huntsham)	Col. Troyte	8	0	6	600 B	30·78	152
D South Molton (Rose Ash)	Mrs. Davy	8	1	0	766 T	26·65	119
D Bideford (Heale House Littleham)	R. Sanders, Esq.	8	1	0	280 B	29·14	128
D Hartland Abbey	Mr. G. Sleep	5	1	6	222 T	29·96	150
D South Molton (East Street)	N.C. Hatherly, Esq. M.D	5	1	0	430 B	32·95	149
,, ,, (Castle Hill)	Mr. R. Nicholas	12	3	9	600	31·84	158
*† Bideford (Horwood)	Rev. J. Dene	5	1	0	288 T	25·08	153
D*† ,, (Northam)	Rev. M. D. Churchward	5	1	0	173 T	25·29	152
D West Buckland (Devon Cnty Schl.)	Rev. J. H. Thompson	5	1	0	650	33·73	172
D† Barnstaple	Mr. Knill	8	1	0	31 T	29·43	140
D ,, (Arlington Court)	Lady Chichester	8	1	1	613 B	38·70	174
D† Ilfracombe Hotel	Mr. W. Tattam	12	9	0	34	22·41	144
†Lynton (Lee Abbey)	C. F. Bailey, Esq.	5	0	6	320	29·54	...
†Lynmouth (Glenthorne)	Mrs. Halliday	5	0	9	93	36·44	...
CORNWALL.							
Penzance (Penlee)	J. Branwell, Esq.	5	1	0	71 T	29·80	174
† ,, (South Parade)	Late WH. Richards, Esq	12	3	0	94 T	25·97	...
D ,, (St. Clare)	Rev. Preben. Hedgeland	5	1	0	213 T	27·90	190
D ,, (Poltair)	Miss Trelawny	5	1	0	243 B	32·22	177
Marazion	T. W. Field, Esq.	5	2	0	30 ?	27·69	166
Falmouth (New Observatory)	The Meteor. Council	11	1	9	...	29·68	156

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above SeaLevel feet.	Depth of Rain. 1887 inches.	Days on which ·01 or more fell.
CORNWALL—(*con.*)							
D Falmouth (New Observatory) ...	E. Kitto, Esq.	8	2	0	167	27·83	145
St. Just	R. B. Searle, Esq.....	5	1	0	400	27·69	...
D Falmouth (Carclew)	Mr. J. Simmons	5	0	9	...	30·65	132
D Redruth (Trewirgie)	A. H. Jenkin, Esq. ...	5	1	0	400 T	29·98	163
D ,, (Tehidy Park)	Mr. A. Mitchell.....	8	1	0	287	27·40	134
D†Truro (Royal Institution).....	Mr. Newcombe	5	43	0	56 R	27·48	128
D ,, (Porthgwidden)	Rev. Canon Phillpotts.	5	1	0	50	29·81	143
D Probus (Lamellyn).....	H. Tresawna, Esq.....	5	0	6	...	29·65	109
St. Agnes	Mr. Opie	5	1	3	278 B	25·60	132
St Austell (St. Mewan).....M	Rev. G. L. Woollcombe	5	1	0	275 T	34·82	...
,, (Polcarne)	J. Coode, Esq.	5	1	0	244 R	31·69	110
D†* ,, (Trevarna)	W. Coode, Esq.	5	0	6	300 R	34·52	158
Par Station (Penellick).....	W. E. Geach, Esq. ...	5	0	9	240 T	27·20	...
Empacombe [Devonport]	S. Harvey, Esq.....	5	1	6	20	26·68	142
D St. John's [Devonport]	Rev. J. H. Kirwan.....	5	1	0	20	28·06	149
St. Germans (Catchfrench)	Miss Tatham	5	0	5	250	37·72	...
D Lostwithiel (Lanwithan)	Miss Foster.....	10	1	1	80	31·71	148
D†Liskeard (Dean Terrace)	S. W. Jenkin, Esq., C.E.	5	1	1	375 R	36·22	158
†Saltash (Pentillie Castle)	Mr. A. W. Cove.....	5	1	6	150 B	34·27	135
†Bodmin (Lanhydrock)	Rev. Prebendary Every	5	1	0	390	36·16	168
,, (Castle Street) ...*weekly*	Capt. Liddell, R.N. ...	5	0	1	315 T	35·63	...
† ,, (,, ,,)	,, ,, ,, ...	5	1	0	316 T	34·17	164
D† ,, (,, ,,)	,, ,, ,, ...	5	1	9	317 T	32·04	164
D† ,, (Fore Street).....	Mr. A. Hambly	8	2	6	336 T	34·41	169
Liskeard (St. Cleer)	S. W. Jenkin, Esq., C.E.	5	1	1	620 R	30·19	...
†Callington (Hingston Down).....	Mr. Wadge.....	5	3	0	850 T	35·70	148
†Launceston (Altarnun)	Rev. A. H. Malan.....	5	1	0	570 B	41·11	152
D ,, (South Petherwin)...	Rev. H. T. May.....	5	0	7	470 B	31·63	152
,, (Hexworthy)	Late H.M.Harvey,Esq.	5	2	7	346	33·16	149
North Tamerton [Holsworthy]..	Major Holt	5	0	10	500	29·21	167
D Bude	J. Arthur, Esq.	5	1	0	16 B	24·48	123
SOMERSET.							
Chard (Cricket St. Thomas).....	RtHn. ViscountBridport	5	1	0	555	25·42	...
D Crewkerne (Bincombe House) ...	F. J. Sparks, Esq.....	5	1	2	250 T	23·06	...
D Yeovil (West Coker).....	Major Aldworth.....	5	1	0	260 T	24·58	162
,, (Hendford).....	J. Curtis, Esq.	5	1	1	...	23·92	119
D Ilminster (White Lackington)...	Rev. Prebendry Gowring	5	1	0	136 R	23·14	143
D ,, (Ilton Vicarage).....	Rev. R. B. Poole	5	1	3	100 R	22·74	151
D South Petherton.....	W. Blake, Esq.	8	0	8	110 T	20·87	157
Wellington (Sunnyside)	W. Elworthy, Esq. ...	5	1	0	...	20 55	101
D Temple Combe (Stowell Rect.)...	Rev. H. J. Poole	5	1	0	376 B	23·96	161
D Milverton	J. H. Bere, Esq.....	5	1	0	198	24·96	147
D ,, (Halse)	J. D. Hancock, Esq. ...	5	1	1	200 T	23·41	142
,, (Fitzhead Court) ...	J. E. Knollys, Esq. ...	5	1	0	297 T	25·54	123
D Taunton (Lydeard House).....	C. Smith, Esq.	5	1	0	...	24·49	147
Cothelston House	C. E. J. Esdaile, Esq...	5	1	0	500	25·98	142
D Wiveliscombe (Willett House) ..	J. Blommart, Esq.....	5	0	7	380	30·15	136

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	SOMERSET—(*con.*)						
D	Somerton (Butleigh Court)	R. Neville Grenville, Esq	8	1 2	80	20·84	122
D	Glastonbury (Street)	W. S. Clark, Esq.	8	1 0	70	23·84	157
	,,	Major Swayne	5	1 8	245 T	22·49	134
	,, (Magdalene House)	J. G. L. Bulleid, Esq.	5	1 6	52 T	22·06	131
D	Exford Rectory	Rev. Prebendary Howes	7	1 0	902 ⅄	41·42	184
	Bridgwater (Ashford)	G. B. Laffan, Esq.	5	1 2	80	26·37	134
	Wells	Mr. R. J. Manning	5	44 0	181 T	25·44	142
	,, (Garden)	,, ,, ,,	5	1 3	...	25·43	142
	Porlock (Ashley Combe)	The Earl of Lovelace	6	0 6	200	36·93	...
D	Frome (Mells Rectory)	Rev. G. Horner	5	1 0	344 ⅄	29·28	165
D	,, (Rock House, Mells)	W. A. Fussell, Esq.	7	2 4	326 ⅄	29·35	160
	,, (,, ,, ,,)	,, ,, ,,	5	7 6	331 ⅄	28·75	...
	Radstock (Downside)	Registrar Gen. Returns	8	0 6	596	32·45	157
	Highbridge (East Brent)	Ven. Arch. Denison	...	...	...	25·80	...
	Chewton Mendip (The Priory)	Mr. J. Batt	5	1 5	550 T	34·85	135
	Ston Easton	H. E. Hippisley, Esq.	5	3 0	480 ⅄	31·49	140
	E. Harptree (Sherborne Reservoir)	Bristol Water Works	5	1 0	338 T	29·90	148
D	,, (Harptree Court)	W. W. Kettlewell, Esq.	5	1 0	346 ⅄	34·05	151
	Axbridge (Winscombe)	Rev. R. F. Follett	8	1 0	200 T	26·42	117
	Weston-super-Mare (High St.)	The Roy. Meteor. Soc.	5	1 0	20	20·00	128
D	,, ,, ,, (Worle Vic.)	Rev. W. F. Rose	5	1 0	16	24·18	140
	,, ,, ,, (Kewstoke)	Rev. S. G. Gillum	5	0 10	50 ?	23·49	139
	Chew Magna	Bristol Water Works	5	1 0	160 T	28·36	138
D†	Bath (Royal Literary Institute)	Mr. E. A. Baker	6	8 0	75 ⅄	21·56	135
D	,, (Queen's Parade)	The late H. Stokes, Esq.	5	1 0	100 T	24·23	169
D	Batheaston Reservoir	A. Mitchell, Esq.	6	2 0	248 ⅄	20·52	124
	Yatton (Chelvey)	Bristol Water Works	7	10 0	...	24·81	126
	Barrow Gurney Reservoir	,, ,, ,,	5	1 0	320 T	30·01	143
D	Bristol Docks (Underfall Yard)	J. W. Girdlestone Esq CE	8	16 2	42 ⅄	24·73	131

DIVISION VI.—WEST MIDLAND COUNTIES.

	GLOUCESTER.						
	Bristol (Small Street)	Bristol Water Works	12	33 10	52	23·30	134
D†	Clifton (South Parade)	Dr. G. F. Burder	8	1 0	192 ⅄	25·79	140
D	Bristol (Shirehampton)	Rev. C. O. Miles	5	2 0	115	23·84	136
D	,, (Over Court) Park	R. C. C. Lippincott, Esq.	5	1 0	148 T	24·74	145
D	,, (,, ,,) Garden	,, ,, ,,	8	0 8	137	24·68	144
	Chipping Sodbury (Frampton Cotl)	J. Marsh, Esq.	5	1 0	180 ⅄	22·29	114
D	,, ,, (Stanshawes Ct)	R. N. Hooper, Esq.	5	1 3	280 ⅄	25·24	133
D	Wickwar Rectory	Rev. R. J. Lyon	5	1 0	260 ⅄	23·75	145
D	Dennel Hill [Chepstow]	Major Cowburn	8	1 0	563 ⅄	27·10	138
D	Fairford (Kempsford)	R. A. Iles, Esq.	5	0 8	...	20·80	119
D	Berkeley (Salter Street)	H. E. Cooke, Esq.	5	6 0	60	22·43	145
D	,, (Sharpness New Docks)	W. B. Clegram, Esq., C.E	5	3 6	50	24·35	136
D	Lechlade	T. Arkell, Esq.	5	0 10	253	19·47	138
D	Minchinhampton (The Close)	Major Pennington	8	1 0	582	26·74	169

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter.	Height Above Ground. ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1887 inches.	Days on which .01 or more fell.
	GLOUCESTER—(*con.*)							
D	Cirencester (Claremont Place) ...	R. Gorton, Esq.....	8	1	0	356 T	22·55	171
	,, (,, ,,) ...	,, ,, ,, ...	8	2	0	357 T	23·79	171
	,, (,, ,,) ...	,, ,, ,, ...	8	0	6	356 T	22·97	171
	,, (,, ,,) ...	,, ,, ,, ...	8	11	0	366 T	21·73	171
D	,, (Royal Agricultural Coll.)	A. G. Bloxam, Esq. ...	5	1	0	443 ⅄	20·72	151
D	,, (Further Barton)	Miss Brown	5	1	0	425	21·58	150
D	Stroud (Upfield).....	Miss Stanton	5	1	0	226 ⅄	22·63	147
D	Fairford (Hatherop Rectory) ...	Rev. R. P. Davies	8	1	3	411 ⅄	20·28	138
D	Frampton-on-Severn(Saul Lodge)	W.B.Clegram,Esq.,C.E	5	3	6	42 ⅄	21·79	155
D	Coleford (The Coombs)	I. Trotter, Esq.	5	1	0	660	35·41	164
D	Newnham-on-Severn.....	D. J. Wintle, Esq.....	5	0	3	56 ⅄	22·99	...
D	Westbury-on-Severn Vicarage...	Mrs. C. J. Jones.....	5	0	9	62 ⅄	22·79	150
D	Great Barrington [Burford].....	J. P. Wakefield, Esq...	8	1	0	416 T	21·15	125
	Northleach (Yanworth).....	T. Arkell, Esq.	5	1	0	...	22·84	124
	,, (Sherborne Park) ...	Mr. Scott	5	1	0	405	21·94	...
D*	,, (Hampnett Rectory)..	Rev. W. Wiggin	5	1	0	653 ⅄	20·39	147
	Gloucester (Quedgeley House)...	W. G. Robinson, Esq..	5	1	0	65 T	19·64	150
D	,, (Birdlip Hill)	A. S. Helps, Esq.	5	1	0	800 B	23·04	144
D	,, (Witcombe Res.).....	R. Read, Esq., C.E. ...	8	3	0	297 ⅄	23·84	128
D	,, (Llanthony Lock) ...	H.J. Marten, Esq., C.E.	5	1	2	39 ⅄	19·87	142
	,, (Denmark Road) ...	Dr. Wood	8	1	6	66	19·92	145
D	,, (Lower Barton Street)	W. P. Brown, Esq. ...	5	1	0	65 ⅄	19·95	141
D	Mitcheldean (Edge Hill House)..	W. H. M. Phillips, Esq.	5	1	6	725 ⅄	25·22	152
D	Gloucester (Maisemore Lock) ...	H.J. Marten, Esq., C.E.	5	1	1	39 ⅄	19·82	175
D	Bourton-on-the-Water.....	The late Dr. Coles.....	5	1	6	435 ⅄	22·36	129
D	Cheltenham (Battledown).....	Sir Brook Kay, Bt. ...	5	0	8	393 ⅄	22·43	142
	,, (Northfield)	W. McLandsboro', Esq.	8	2	0	520	24·73	125
	,, (Hewletts Res.) ...	,, ,, ,,	8	0	9	400	23·28	125
D	,, (Heath Lodge) ...	Rev. M. A. Smelt	8	1	0	206	22·82	139
D	,, (Montpellier Lodge)	Rev. Dr. Kynaston ...	5	1	0	200	22·56	145
D	,, (Southam Villa) ...	R. Tyrer, Esq.	5	1	0	184 ⅄	22·78	153
	,, (,, ,,) M	,, ,, ,, ...	5	1	0	184 ⅄	21·87	...
D	Moreton-in-Marsh(Longborough)	W. Arkell, Esq.....	5	0	9	...	25·30	142
D	Tewkesbury (Upper Lode)	H.J. Marten, Esq., C.E.	5	1	0	41 ⅄	17·93	151
	,, ...	W. McLandsboro, Esq.	5	0	9	44	15·20	140
D	,, (Beckford)	F. Slade, Esq., C.E. ...	8	1	0	120 ⅄	21·43	144
D	Alscot Park [Stratford-on-Avon]	Mr. T. B. Wilson	5	1	3	...	19·28	139
	HEREFORD.							
	Wyastone Leys [Monmouth] ...	J. M. Bannerman, Esq.	6	1	0	200 B	23·43	155
	Ross (Pontshill).....	W. E. Hancock, Esq...	8	2	0	256	22·49	...
D†	,, (The Graig)	H. Southall, Esq.	5	1	0	213 ⅄	22·57	163
	Much Dewchurch (Bryngwyn)...	J. Rankin, Esq., M.P.	5	0	10	420 B	21·05	137
D	Brockhampton Court.....	Sir C. R. Lighton, Bart.	5	2	0	360	19·21	113
D	Much Marcle (Caerswall)	T. Charles, Esq.....	5	1	0	423 B	19·52	137
D	Hereford (Fownhope Vicarage)...	Rev. T. West.....	5	1	0	192 B	18·40	116
D	Ledbury (Orchardleigh)	M. A. Wood, Esq.....	5	3	0	160	17·98	118

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1887	Days on which 01 or more fell.
				ft. in.	feet.	inches.	
	HEREFORD—(*con.*)						
	Ledbury (Putley Court)	J. Riley, Esq.	5	1 0	280	20·88	136
	Hereford (Mansion House)	J. Parker, Esq.	5	0 10	184 ⅄	17·63	...
	,, (Hagley Park)	A. Hutchinson, Esq.	5	0 6	300 B	17·77	...
D	Ledbury (Colwall)	Mrs. Devas	5	0 10	650 B	20·88	142
D	,, (Canon Frome Vic.)	Rev. M. Hopton	8	1 3	252 T	20·36	142
	Hereford (The Elms)	C. Anthony, Esq.	8	0 6	275 ⅄	19·82	136
	,, (Brinsop Vic.)	Rev. W. Elliot	5	1 0	300 T	17·69	134
	,, (Burghill) No. 3	T.A.Chapman,Esq.M.D	5	1 0	275	17·83	129
D	,, (,,) No. 2	,, ,, ...	5	1 0	275	17·65	129
D	,, (,, Portway)	BaldwinLathamEsq CE	5	1 0	...	17·18	131
D	,, (Thinghill,Withington)	H. Higgins, Esq.	5	1 0	200 ?	19·63	133
D	Hope-u-Dinmore (Hampton Ct.)	J. H. Arkwright, Esq..	8	1 2	212 B	18·91	109
D	Kington (Lynhales)	S. Robinson, Esq.	8	1 0	...	23·37	156
D	Pembridge (Marston)	H. Langston, Esq.	5	1 5	347 T	18·94	141
D	Leominster (Farm)	H. J. Southall, Esq.	5	1 0	260 ⅄	19·87	148
D	Stoke Bliss	Rev. G. E. Alexander..	6	1 0	400 B	19·75	145
	SHROPSHIRE.						
D	Ludlow (Ashford)	Rev. J. Selwood Tanner	5	1 5	233	21·52	153
	Dowles [Bewdley]	J. M. Downing, Esq..	5	1 3	162 ⅄	19·92	110
	Cleobury Mortimer (Neen Savage)	Rev. F. Burd	5	0 11	367 T	23·09	147
D	Ludlow (Bromfield Vicarage)	Rev. W. Selwyn	5	1 0	300 T	21·90	134
D	Clun (Bettws)	Mr. R. F. Brand	5	2 0	1100 T	29·89	150
D	Craven Arms (Stokesay Vicarage)	Rev. J. D. La Touche..	5	1 0	371 ⅄	20·39	132
D	Burwarton	Rev. A. James	5	1 0	830	28·66	135
	Bishop's Castle (Castle Street)	E. Griffiths, Esq.	5	2 0	720 B	23·88	159
D	,, ,, (More Rectory)	Rev. A. S. Male	5	1 0	640 ⅄	24·97	191
D	Much Wenlock (Larden Hall)	Miss F.Rouse Boughton	8	1 3	658 ⅄	24·65	150
D	Bridgenorth (Aldenham Park).	W. F. De Wend, Esq..	5	3 9	430 T	22·34	139
	Church Stretton (Preen Manor)	A. Sparrow, Esq.	5	1 0	700 T	23·64	155
D	,, ,, (Woolstaston)	Rev. E. D. Carr.	5	1 0	800 ⅄	23·49	166
D	Middleton in Chirbury	Rev. W. Brewster	5	1 2	702 ⅄	22·88	163
D	Much Wenlock (Willey Park)	T. H. Thursfield, Esq.	5	1 0	502 ⅄	22·71	155
	Condover Hall	Mrs. H. G. Close	5	1 0	277 ⅄	20·93	139
	Minsterley (Hampton Hall)	J. Whitaker, Esq.	...	1 0	630	23·64	...
	,, (Wallop)	J. E. Severne, Esq.	...	3 0	700 T	27·33	147
D	Pontesbury (The Villa)	W. R. Croft, Esq.	5	1 6	...	21·55	110
D	Shrewsbury (Onslow Hall)	Col. Wingfield	8	0 5	301	19·70	140
	,, (,, ,,) M	,, ,, ..	8	0 3	306	19·61	...
	Preston Gubbalds	Rev. J. Brownjohn	5	0 10	...	20·88	...
D	Cheswardine (Knighton Res.)	G. R. Jebb, Esq., C.E.	8	0 3	351 ⅄	22·78	165
	Oswestry (Park Avenue)	H.T.Wakelam,Esq.C.E	6	1 3	490 ⅄	24·54	...
	,, (Hengoed)	Rev. A. R. Lloyd	5	6 0	470 ⅄	25·05	...
	Market Drayton (Buntingsdale)	Mrs. Tayleur	5	1 0	276 ⅄	22·24	137
D	Adderley Rectory	Rev. A. Corbet	5	0 9	290 T	20·82	154
	Whitchurch (Green End)	Messrs. Jones & Co.	12	2 6	...	22·38	...

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	STAFFORD.						
	Dennis [Stourbridge]	Mr. C. Webb	8	6 6	270 S	19·99	153
	Netherton (Lodge Farm Res.)	G. Jebb, Esq., C.E.	5	1 0	445 S	21·07	157
	Handsworth	G. R. Farncombe, Esq.	5	4 9	529 S	20·57	151
D	Perry Hall [Birmingham]	Mr. G. B. Mitchison	5	2 6	...	21·04	160
	Walsall	E. B. Marten, Esq., C.E.	8	4 0	463 S	23·28	151
	Wolverhampton (Town Hall)	REW Berrington Esq CE	5	15 6	481 S	20·65	142
D	,, Park	Mr. W. Thomas	5	1 0	430 S	22·51	157
D	Patshull Gardens	Mr. Bayne	8	1 3	400	24·14	144
D	Wolverhampton (Wrottesley)	Mr. E. Simpson	8	1 0	500	22·96	139
	Bloxwich (Sneyd Res.)	G. Jebb, Esq., C.E.	5	1 0	507 S	19·96	143
	Hammerwich (Cannock Chase Res)	,, ,, ,,	5	1 0	475 S	19·82	152
	Lichfield Museum	Mr. J. P. Roberts	5	2 0	220 S	24·01	155
D	Weston Park [Shifnal]	Rt. Hon. Earl of Bradford	5	1 6	400 T	21·41	158
D	Brewood (Belvide Res.)	G. R. Jebb, Esq., C.E.	8	1 0	367 S	20·88	107
D	Penkridge (Rodbaston)	H. Ward, Esq.	5	1 0	260 ?	23·72	125
D	Burton (Shobnall)	R. W. Abbotts, Esq.	5	6 0	156 T	17·19	142
D	,, (Derby Road)	J. G. Wells, Esq.	5	1 0	151 T	18·72	165
D	,, (Hoar Cross)	F. W. Lycett, Esq.	8	4 0	400 T	21·19	141
D†	Cheadle (The Heath House)	J. C. Philips, Esq.	5	1 0	647 S	22·20	157
D†	,, (Tean Vicarage)	Rev. G. T. Ryves	5	1 0	470 T	23·63	165
D	Longton (The Meir)	J. B. Piercy, Esq.	5	1 0	618 S	22·46	166
	Cheadle (Oakamoor)	Royal Meteor. Society.	5	1 0	346	24·61	114
D	Newcastle (Madeley)	J. B. Piercy, Esq.	5	1 0	348 S	22·02	135
	Stoke (Stanley Reservoir)	E. B. Smith, Esq., C.E.	5	3 1	550 T	19·89	...
	Etruria	,, ,, ,,	5	4 2	440	21·53	102
D	Burslem	J. E. Worth, Esq., C.E.	8	1 0	555 S	22·08	158
D	Ilam Hall [Ashborne]	Mr. J. McNair	5	1 0	470 T	26·32	118
	Alstonfield Vicarage	Rev. W. H. Purchas	5	1 0	909 S	25·25	136
D	Leek (Wall Grange) *old g.*	J. B. Piercy, Esq.	8	1 0	458 S	23·61	150
D	,, (,, ,,) *new g.*	,, ,, ,,	5	1 0	458 S	22·39	150
	Knypersley [Congleton]	E. B. Smith, Esq., C.E.	5	14 0	500 T	25·96	139
	WORCESTER.						
	Blockley	R. B. Belcher, Esq.	5	1 0	472 S	25·47	...
	Northwick Park	Lady Northwick	8	1 6	410 S	22·99	...
	Upton-on-Severn (Willow Bank)	J. S. Cowley, Esq.	5	1 0	...	19·59	146
D	Little Malvern (The Farm)	R. S. Moody, Esq.	8	1 0	500 T	20·63	143
D	Evesham (Lansdowne)	R. Burlingham, Esq.	5	5 0	124 S	17·74	119
D	,, (Bank)	T. J. Slatter, Esq.	5	1 0	103 T	19·01	143
D	Great Malvern (Hornyold Ter.)	H. Sandoe, Esq.	5	0 7	550 L	18·73	129
	,, ,,	J. E. Palmer, Esq.	5	1 0	361 S	20·12	...
D	,, ,, (Davenham Bank)	Mr. A. Bradshaw	...	...	...	18·46	117
	,, ,, (Madresfield Rect.)	Rev. G. S. Munn	5	1 4	124 T	17·18	105
	,, ,, (,, Court)	Mr. W. Crump	8	1 0	135 T	17·71	130
D	Worcester (Diglis Lock)	H. J. Marten, Esq., C.E.	5	1 0	49 S	18·55	161
	,, (Wick Episcopi)	Mr. Drinkwater	...	...	...	15·51	123
D	,, (St. George's Square)	G. B. Wetherall, Esq.	5	1 8	56 T	17·00	144
D	,, (Bevere Lock)	H. J. Marten, Esq., C.E.	5	1 1	52 S	17·64	154

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above SeaLevel	Depth of Rain. 1887	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	WORCESTER—(*con.*)						
D	Worcester (Hawford Lodge)	H.J. Marten, Esq.,C.E.	5	1 1	...	19·23	125
D	Droitwich (Holt Lock)	Mr. F. Norkett	5	1 1	55 ⅄	19·18	136
D	,, (Ombersley)	BaldwinLathamEsqCE	5	1 0	...	18·49	100
D	Tenbury (Orleton)	T. H. Davis, Esq.	5	0 9	193 ⅄	21·07	151
D	Redditch (Prospect Hill)	H. Page, Esq., M.D.	5	1 0	420 T	20·56	153
D	Bromsgrove (Stoke Reformatory)	Mr. J. Salter	5	1 3	225 L	17·34	120
D	,, (Tardebigge Res.)	W.B.Clegram,Esq.C.E.	5	3 0	433 T	20·47	150
D	Stourport (Lincombe Lock)	H.J. Marten,Esq., C.E.	5	1 0	62 ⅄	20·28	150
	,, (Hartlebury)	J. Watson, Esq.	5	1 0	320	20·82	...
	,, (Areley Court)	Late C. Harrison, Esq.	5	1 0	145 T	19·66	157
D	Bromsgrove (Upper Bittal Res.)	W.B.Clegram,Esq.C.E.	5	3 0	518 T	22·14	160
D	Bewdley (Bark Hill)	Mr. W. Wrather	8	2 0	...	20·98	130
	Stourbridge (Pedmore)	E.B. Marten, Esq.,C.E.	8	0 11	350 ⅄	20·88	151
	,, (Longlands)	,, ,, ,,	8	1 0	260 ⅄	22·23	132
	Acocks Green [Birmingham]	H. Grosvenor Hill, Esq.	5	1 0	420	23·26	143
	WARWICK.						
D	Shipston (Compton Wynyates)	J. Sargent, Esq.	5	2 6	...	21·46	136
	Radway (Ivy Lodge)	Rev. G. Miller	5	1 1	400 T	20·37	125
	Farnborough Vicarage	Miss Prater	5	1 2	...	24·92	144
	Kineton (Fenny Compton)	E. Knott, Esq.	5	4 0	430	20·13	...
	Stratford-on-Avon (Avonside)	C. Lucy, Esq.	8	0 8	123 T	16·00	...
D	Warwick (Barford Rect.)	Rev. C. Mills	8	0 11	167 ⅄	16·74	133
D	,, (Priory Gardens)	Mr. R. Greenfield	5	4 2	240 ⅄	17·72	...
D	Southam (Stockton)	Rev. W. Tuckwell	5	1 0	289	15·70	125
	Leamington (Upper Parade)	J. Barnitt, Esq.	5	0 8	195 ⅄	17·50	134
D	Henley-in-Arden (Barrells Park)	T. H. G. Newton, Esq.	5	1 0	300 T	20·49	145
D	Kenilworth (Park Hill)	T. G. Hawley, Esq.	8	0 8	300	20·91	132
D	,, (The Spring)	W. Evans, Esq.	5	1 0	312 ⅄	20·16	141
D	Rugby School	W. N. Wilson, Esq.	5	1 3	383 T	19·50	144
D	Coventry (Ryton on Dunsmore)	Mr. Franklin	5	1 2	260 T	20·37	168
	,, (Priory Row)	J. Gulson, Esq.	8	1 3	279 ⅄	21·62	153
	,, (Middlesboro' Terrace)	Miss Merry	5	1 0	345 ⅄	19·59	142
	,, (Stoke)	J. Gulson, Esq.	...	...	241	21·01	...
D	,, (Coundon)	Colonel Caldicott	5	1 0	370 T	20·02	136
D	Willey Rectory [Lutterworth]	B. P. M. Payler, Esq.	8	1 0	350 T	21·53	147
D	Birmingham (Sheldon Rectory)	Mrs. Jones Bateman	8	0 5	...	20·04	129
D†	,, (Botanic Gardens)	Mr. Latham	5	5 2	505 T	21·00	158
D	,, (The Monument)	A. Cresswell, Esq.	...	...	...	20·97	136
D	,, (The Crescent)	J. J. Gilbert, Esq.	5	21 0	495 T	19·50	139
	,, (,, ,,) ...M	,, ,, ,,	5	7 0	480 T	20·56	139
D	Atherstone	BaldwinLathamEsqCE	5	1 0	286 ⅄	21·54	118

DIVISION VII.—NORTH MIDLAND COUNTIES.

	LEICESTER.						
D	Market Harborough (The Hutch)	R. Symington, Esq.	8	4 0	267 T	16·75	120
D†	Kibworth Beauchamp	T. Macaulay, Esq.	5	2 6	355 T	18·35	139
D†	Leicester (Town Museum)	Mr. J. C. Smith	5	1 0	238 T	19·50	162
D	,, (Town Hall Square)	J. Gordon, Esq., C.E.	9	1 7	212 ⅄	19·92	139

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above SeaLevel feet.	Depth of Rain. 1887 inches.	Days on which ·01 or more fell.
LEICESTER—(*con.*)							
D Little Orton [Atherstone]	BaldwinLathamEsqCE	5	1	0	350	18·72	116
D†Thornton Reservoir	F. Griffith, Esq., C.E..	8	1	2	371 ⅄	19·33	119
Barkby	Rev. E. N. Pochin	8	0	10	221 ⅄	17·83	149
D Thurcaston	Rev. T. A. Preston	5	1	0	...	17·51	147
D ,, (Cropston)	F. Griffith, Esq., C.E..	8	1	0	246 ⅄	19·08	141
Swithland (Roecliffe)	,, ,, ,,	8	1	0	...	18·25	150
,,	,, ,, ,,	8	1	0	...	18·24	155
,, (The Brand)	,, ,, ,,	8	1	0	...	19·19	158
,, (Broombriggs Hill)	,, ,, ,,	8	1	0	...	17·10	163
D Rotherby Hall	J. Hames, Esq.	5	1	0	250 T	15·76	161
D Melton Mowbray(ThorpeArnold)	Rev. J. S. Swift	8	2	3	336 ⅄	16·30	138
D Loughborough (Nan PantonRes.)	A. W. Cross, Esq., C.E.	8	2	11	269 ⅄	17·72	137
,, (,, ,,)M	,, ,, ,,	5	2	0	269 ⅄	18·10	...
,, (Cedar Cottage)	J. Giles, Esq.	5	0	9	327 T	18·48	...
D ,, (Victoria Street)	W. Berridge, Esq.	5	0	10	169 B	16·87	145
,, (,, ,,)	,, ,, ...	8	0	11	169 B	16·86	145
D Melton Mowbray (Coston Rect.)	Rev. A. M. Rendell	5	1	0	362 ⅄	16·62	153
D Waltham-le-Wolds	Mr. E. Ball	5	1	6	532 ⅄	19·18	155
D Harston [Grantham]	F. Beasley, Esq.	...	1	3	...	17·24	135
D†Belvoir Castle	W. Ingram, Esq.	8	1	0	237 T	19·46	165
RUTLAND.							
D Uppingham (West Deyne)	Rev. G. H. Mullins	8	1	6	485 ⅄	15·68	161
D Ketton Hall [Stamford]	F. Coventry, Esq.	5	1	0	130 B	17·19	178
Oakham (Whitwell)	Rev. J. Beecheno	5	1	0	300	15·51	...
D Tolethorpe Hall [Stamford]	C. O. Eaton, Esq.	8	0	8	160 T	15·38	145
Burley-on-the-Hill	Mr. W. Temple	8	1	0	506	17·76	120
D Oakham (Ashwell Lodge)	Westley Richards, Esq.	8	0	5	...	18·18	133
,, (Greetham)	Rev. C. A. Holmes	5	0	4	377 ⅄	16·78	...
D Market Overton	Miss H. E. G. Wingfield	8	0	11	475 T	17·78	186
LINCOLN.							
Stamford (Barn Hill Ho.)	Dr. Newman	5	1	0	116 T	16·20	...
,, (Castle Cottage)	T. Booth, Esq.	5	1	0	...	17·17	...
D ,, (Northfields)	Mr. W. Hayes	5	1	0	166 ⅄	16·37	124
D*Bourne (Wytham-on-the-Hill)	A. C. Johnson, Esq.	5	1	0	167 ?	15·61	110
Long Sutton	Mr. J. Tilson	5	4	0	...	17·84	135
Spalding (Pode Hole)	Mr. A. Harrison	12	0	3	20 ⅄	15·13	...
Grantham (Little Ponton Rect.)	Rev. P. R. Worsley	...	...		...	17·74	...
,, (Saltersford)	H. Preston, Esq.	5	0	6	188 ⅄	17·01	136
,, (Heydour Vicarage)	Rev. G. F. Deedes	5	1	10	244 T	15·22	...
D Boston (Grand Sluice)	J.E.Williams,Esq., C.E	8	6	0	22	14·67	153
D ,,	W.H.Wheeler,Esq.C.E	5	6	6	16	12·94	117
Sleaford	H. Kirk, Esq.	8	1	3	59 ⅄	12·78	118
Leake (Lade Bank Engines)	J.E.Williams,Esq., C.E	...	...		...	15·48	132
D Wrangle	A. Spurr, Esq.	5	1	0	10	18·08	137
D Stubton [Newark]	G. Nevile, Esq.	5	4	6	94 T	17·76	158
Sleaford (Bloxholm)	Mr. D. Lumsden	5	1	3	80	17·04	...

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter.	Rain Gauge. Height Above Ground.	Rain Gauge. Height Above Sea Level	Depth of Rain. 1887	Days on which '01 or more fell.
				ft. in.	feet.	inches.	
	LINCOLN—(*con.*)						
D	Navenby	Rev. J. Hays	8	1 2	215 T	16·68	183
	Horncastle (Miningsby)	W.H.Wheeler,Esq.C.E	5	0 6	135 ⅄	17·46	...
D	Spilsby	Dr. J. W. Walker	5	1 0	300	22·32	170
D	,, (Hagworthingham)	Mr. R. Wright	5	1 1	200	20·43	131
D	Horncastle (Bucknall)	W. Carter, Esq.	5	1 0	50	17·98	125
	,, (Queen Street)	H. George, Esq., M.D..	5	1 0	100	17·56	...
D	Lincoln (Branston)	A.S.LeslieMelville, Esq	...	...	120	18·14	136
D†	,, (Boultham)	Mr. F. Terrill	5	1 0	18 ⅄	18·33	142
†	,, (St. Botolphs)	H. Teague, Esq.	5	1 3	25 ⅄	17·70	...
	,, (St. Catherine's)	J. H. Teague, Esq.	5	5 6	33 ⅄	18·30	...
D	,, (Doddington)	Rev. R. E. Cole	5	1 2	92 ⅄	16·04	146
	,,	M. S. & L. R. Co.‡	9	3 6	26	15·53	146
	,, (D'Isney Place)	A.H.Leslie Melville Esq	4	1 0	215 L	17·23	134
D	,, (Brayford Wharf)	Mr. J. W. Horton	5	5 8	28 ⅄	16·87	167
	,, (Tentercroft Street)	W. F. Norton, Esq.	8	1 3	22	17·62	...
	,, (The Quarry)	R. Swan, Esq.	8	1 5	178 T	15·41	113
	,, (Skellingthorpe Hall)	R. C. B. Coupland, Esq.	5	1 1	...	16·09	134
	Horncastle (Hemingby)	Rev. E. S. Bengough..	5	1 0	158	18·93	150
D	Alford (The Burial Ground)	Mr. E. Hodgson	5	1 0	29 ⅄	20·22	170
D	,, (The Sycamores)	J. E. Mason, Esq.	8	1 3	22 T	19·97	174
	,, (Sutton-by-the-Sea)	F. Lowry, Esq., C.E.	5	1 0	9 ⅄	16·84	132
	Gate Burton	M. S. & L. R. Co.	9	3 6	96	15·84	120
D†	Louth (Gospelgate)	T. W. Wallis, Esq.	5	6 0	111 ⅄	24·00	163
†	,, (Westgate)	Dr. F. Fawssett	5	0 9	120 ⅄	23·65	158
D	Market Rasen	Mr. W. B. Jevons	5	0 8	84	18·01	130
	,, ,,	M. S. & L. R. Co.	9	...	100	19·56	104
	Gainsborough	,, ,, ,,	9	...	76	14·28	119
	Stockwith	,, ,, ,,	9	3 6	21	15·57	130
	Caistor	Rev. R. Thomas	5	0 9	283 ⅄	15·75	136
	Wroot Engine	A. L. Peace, Esq., C.E.	10	6 0	...	15·23	123
	Brigg	M. S. & L. R. Co.	9	3 6	16	13·18	143
D	,,	A. Atkinson, Esq.,C.E.	8	1 2	10 T	17·71	138
	Grimsby (Aylesby)	S. McAulay, Esq.	5	1 6	...	17·87	159
D	Riby	Mr. Freeman	5	2 2	106 T	21·13	171
	Grimsby	M. S. & L. R. Co.	9	15 0	42	16·48	135
D	Ulceby (Limber Grange)	T. Hopkins, Esq.	5	1 6	164 T	21·05	173
	Barnetby	M. S. & L. R. Co.	9	3 6	51	15·40	113
	N.LevelEngine[ThorneDonc'st'r]	A. L. Peace, Esq., C.E.	5	2 3	...	16·01	142
	Crowle (Keadby)	M. S. & L. R. Co.	9	...	10	13·41	121
	Appleby	Rev. J. E. Cross	5	0 9	60 L	15·96	130
	Ferriby Sluice	,, ,, ,,	5	0 9	10	15·50	...
	New Holland	M. S. & L. R. Co.	9	3 6	18	14·94	...
	NOTTS.						
	Normanton on Soar [Loughboro']	T. W. Rowland, Esq.	5	0 0	118	16·96	...
D	Kingston Hall [Loughborough]	Mr. W. English	5	0 8	...	16·63	123
D	Thrumpton Hall	Mr. Geddes	5	0 6	111 ⅄	14·94	150

‡ Kept for the Canals Department of the Manchester, Sheffield, and Lincolnshire Railway Company. Returns supplied by G. Taylor, Esq.

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height above Ground.	Height above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell
				ft. in.	feet.	inches.	
	NOTTS—(*con.*)						
	Cropwell Bishop (Cropwell Grove)	H. Smith, jun., Esq.....	5	1 1	160 T	17·61	...
D	Stapleford Hall	Col. Ichabod Wright..	5	1 0	132 R	15·04	119
D	Nottingham (Beeston Fields) ...	G. Fellows, Esq.	5	0 9	206 R	17·64	147
	,, (Cromwell Street) ..	Miss L. E. Booker.....	5	0 6	190	15·22	...
D	,, (Park Hill)	H. F. Johnson, Esq. ...	8	3 8	280	14·63	136
D	,, (Stoke Bardolph Sew Fm)	Mr. J. Avis.....	8	6 7	...	15·15	130
D	,, (Strelley Hall)	T. L. K. Edge, Esq. ...	8	1 0	396 R	18·46	134
D	,, (Mapperley Hill) ...	E. Powell, Esq.	8	1 0	400	16·10	112
	,, (Gedling)	Rt. Hon. Lord Forester	5	2 0	137 T	16·30	149
	,, (Sherwood).....	Mr. Frank Rayner ...	8	1 3	250	15·40	125
D	,, (Woodthorpe Grange)	H. Ashwell, Esq.	8	1 3	270 ?	17·54	125
D	Newark (Shelton Rectory)	Rev. R. W. Marriott...	5	2 2	85	16·16	178
	Eastwood Colliery	Mr. E. Lindley	5	38 0	282 T	15·00	147
D	,, ,, ...	,, ,, ,, ...	5	1 0	245 T	18·12	152
D	Hucknall Torkard (Forge Mills)	J. D. Walker, Esq.....	5	1 0	200 ?	16·37	128
	Annesley Park	Mr. A. Young	8	2 0	560	20·51	107
	Southwell (Oxton).....	Miss Sherbrooke.....	5	0 9	182	20·38	...
D	Newark (Kirkgate)	Mr A. Read	5	1 0	50	14·42	137
	Mansfield (Forest Villa)	S. W. Wright, Esq. ...	5	3 6	450	20·24	...
D	,, (Market Place).....	Mr. W. Jackson	5	1 0	370 T	20·95	164
D	Ollerton (Thoresby Gardens) ...	Mr. A. Henderson	8	4 0	175	21·21	133
D	Tuxford (Grammar School).....	J. N. Dufty Esq.	5	1 0	220 T	16·75	111
	Worksop.....	M. S. & L. R. Co.	9	3 6	127	15·26	121
D	,, (Osberton)	S. A. Woods, Esq.... ..	5	3 11	...	18·95	139
	Retford	M. S. & L. R. Co.	9	3 6	52	14·13	131
D	Worksop (Hodsock Priory)	H. Mellish, Esq.	8	1 0	56 R	15·95	161
	,, (,, ,,) .....M	,, ,, ...	5	1 0	56 R	15·29	...
D	The Gardens [Bawtry Hall] ...	L. T. Baines, Esq.....	5	1 0	31 T	15·85	...
D	Hesley Hall [Tickhill]	B. I. Whitaker, Esq....	8	0 11	61 T	16·24	140
	DERBY.						
D	Stapenhill [Burton]	R. W. Abbotts, Esq....	5	4 0	170	17·02	150
D	,, [,,]	A. J. Brown, Esq.....	5	1 0	...	18·49	151
D	Bretby Park [,,]	Mr. G. Brunt.....	5	4 6	405 T	20·98	156
D	Melbourne	Miss Tasker	5	0 3	...	20·23	129
	Derby (Findern)	Rev. B. W. Spilsbury..	5	0 9	186 T	14·83	...
D	,, (Elvaston)	H. Chambers, jun. Esq	5	1 0	...	16·13	140
D	Mickleover Manor	Mr. J. Campbell	5	2 0	200	16·24	110
	Derby (All Saints' Works)	Messrs. J. Davis & Son	...	...	...	17·26	145
	,, (Duffield).....	Mr. W. Bland	5	1 0	250 T	17·27	111
D	,, (Holmside, Hazelwood) ...	C. H. B. Hambly, Esq.	5	1 3	500 T	18·90	153
D	Belper (Hazelwood, Chevin).....	Sir J. G. N. Alleyne, Bart.	5	4 0	540	17·82	162
D	,, (Northfield).....	J. Hunter, Esq., C.E....	8	0 8	225	20·23	141
D	Wirksworth (Holloway)	R. Wildgoose, Esq. ...	5	1 0	450 T	23·84	156
†	Matlock (Willersley Gardens) ...	Mr. Barlas	6	1 3	440 T	24·50	...
†	,, Bath.....	Mrs. Chadwick	5	1 6	500 T	23·22	110
	Stretton (Lindway Res.)	R. G. Coke, Esq., C.E.	5	4 3	447 R	12·89	119
D	Stuffynwood Hall [Mansfield]...	J. Paget, Esq.	5	1 3	389 T	19·10	146

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which 01 or more fell.
			ft. in.	feet.	inches.	
DERBY—(*con.*)						
Chesterfield (Hardwick Hall) ...	Mr. Wilson.....	8	2 6	594 T	24·47	140
D ,, (Grassmoor Colliery)	E. Bromley, Esq.	5	19 10	370	16·99	152
D Chatsworth Gardens	O. Thomas, Esq.	8	6 0	404	20·60	163
D Chesterfield (Gas Works)	C. E. Jones, Esq., C.E.	5	1 0	279	20·35	151
,, ...	M. S. & L. R. Co.	9	3 6	248	18·65	144
D ,, (Linacre Reservoir).	C. E. Jones, Esq., C.E.	8	3 6	490 ⅄	18·35	131
D ,, (Tapton House).....	C. Markham, Esq.	7	1 3	...	15·82	100
,, (Brimington Hall).	R. G. Coke, Esq., C.E.	5	1 4	408 ⅄	19·29	171
D† Buxton (Devonshire Hospital)...	J. C. Thresh, Esq.....	5	1 0	986 ⅄	32·38	151
† Stony Middleton	The late Rev. U. Smith	5	4 0	692 B	19·80	125
† Comb's Moss	M. S. & L. R. Co.	9	3 6	1669 T	25·46	...
† ,, Reservoir	,, ,, ,, ...	9	3 6	710 T	21·78	185
† Chapel-en-le-Frith	,, ,, ,, ...	9	3 6	965 T	21·66	153
† Killamarsh (Norwood)	,, ,, ,, ...	9	3 6	238 T	17·99	140
Norton (Chantrey Grange)	Col. Creswick	...	...	700	20·04	...
† Glossop (Spire Hollin)	F. Hawke, Esq.	8	0 10	612 T	25·58	...
Woodhead Station	M. S. & L. R. Co.	9	3 6	878 T	37·22	167

DIVISION VIII.—NORTH WESTERN COUNTIES.

CHESHIRE.						
D Nantwich (Dorfold Hall)	J. A. Saner, Esq.	8	1 6	...	22·19	123
Crewe (Wistaston Road)	E. Pillow, Esq., C.E..	12	30 8	209	18·48	...
D Congleton (Buglawton Vic.).....	Rev. W. Besant.....	8	5 0	347 T	19·84	126
Tarporley (Cote Brook)	H. Bancroft, Esq.....	5	1 3	217	21·50	...
Bosley Reservoir	M. S. & L. R. Co.	9	3 6	590 T	19·53	153
,, Minns.....	,, ,, ,, ...	9	3 6	1210 T	22·08	148
Macclesfield (Wincle)	E. B. Smith, Esq., C.E.	5	3 0	500	27·25	125
Winsford (Meadow Bank)	H. E. Falk, Esq.	...	...	...	20·36	...
D Chester (Rowton Grange)	T. R. Fleming, Esq. ...	5	1 0	164 B	21·02	157
D ,, (Christleton Hall)	Mr. T. Weaver	5	1 2	142 ⅄	21·84	155
D ,, (Waterworks).....	J. Dugdale, Esq.	5	0 10	85 ⅄	20·12	163
† ,, (Lead Works).....	A. O. Walker, Esq. ...	5	1 0	65 T	20·59	153
,, (,, ,, Field) ...	,, ,, ,, ...	5	1 2	67 T	20·78	154
D† ,, (Newton Nurseries).....	J. Dickson & Sons	5	1 0	62 ⅄	23·50	165
Middlewich (Bostock Hall)	Col. France Hayhurst..	5	2 0	157 ⅄	19·82	127
D Siddington (Thornycroft Hall)...	Mr. J. Harrison.....	5	3 0	377	19·79	152
D Macclesfield (Capesthorne)	Rev. A. F. Claydon ...	5	1 0	315 ⅄	21·10	151
,, (The Park)	Mr. J. Dale.....	5	1 0	501 T	20·88	151
D Chelford (Astle Hall)	G. Dixon, Esq.	5	1 0	250 T	19·92	133
,, (,, ,,) .....M	,, ,, ,, ...	8	1 0	250 T	18·78	...
D Northwich (Highfield)	J. A. Saner, Esq., C.E..	8	3 4	118 ⅄	20·59	148
,, (Winnington).....	H. Neumann, Esq.....	8	1 3	120 T	21·00	137
D ,, (,,).....	Mssrs Brunner Mond & Co	5	3 8	110 ⅄	19·45	149
D* Neston (Hinderton)	Reginald Bushell, Esq.	5	1 0	215 ⅄	21·21	154
* ,, (,,) .....M	,, ,, ,, ...	8	1 0	215 ⅄	21·52	...
,, (,, Lodge) ...M	,, ,, ,, ...	5	1 0	145 ⅄	20·27	...

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
CHESHIRE—(*con.*)						
Frodsham (Dunsdale)	J. Simpson, Esq.	5	1 1	206	21·46	168
Knutsford (Heath Side)	W. Tyrer, Esq.	5	1 0	210	20·72	148
Bollington (Spond's Hill)	M. S. & L. R. Co.	9	3 6	1279 T	18·97	...
Wilmslow (Southside)	G. Pearson, Esq.	8	2 0	255 T	22·34	133
†Whaley	M. S. & L. R. Co.	9	3 6	602 T	24·32	168
D Thurstaston (Dawpool)	J. H. Ismay, Esq.	...	...	...	18·00	...
D Stockport (Cheadle Hulme)	R. A. Grundy, Esq.	5	1 0	196 T	17·41	137
D Runcorn (Weston Point)	J. A. Saner, Esq., C.E.	4	2 4	18	22·51	119
D Hill Cliffe [Warrington]	J. Marson, Esq.	5	1 0	159 ⅄	22·48	156
Lymm (Agden Hall)	Mr. J. Hewitt	5	1 0	190	18·13	113
Bowdon (The Firs)	R. Swindells, Esq., C.E.	5	0 8	215 ⅄	21·26	...
D Thelwall (Highfields)	T. G. Rylands, Esq.	5	1 0	118 ⅄	20·91	165
,, (,,) M	,, ,, ,,	5	1 0	118 ⅄	20·73	...
D ,, (Massey Hall)	L. G. Rylands, Esq.	5	1 0	100 B	22·01	153
D ,, (Millington House)	L. W. Reynolds, Esq.	5	1 0	85	22·64	150
D Lymm (Statham Lodge)	P. Stubs, Esq.	5	1 0	42 ⅄	20·94	158
,, (,, ,,) M	,, ,,	5	1 0	42 ⅄	21·17	...
Altrincham (Norman's Place)	A. Griffiths, Esq.	5	1 0	150 T	24·41	134
,, (Barrington House)	J. Newton, Esq., C.E.	8	3 0	105 ⅄	22·06	...
D†Birkenhead (Bidstone Obs.)	J. Hartnup, Esq.	8	1 0	189 ⅄	20·82	161
D Northenden (Wythenshawe)	T. E. Tatton, Esq.	5	1 0	114 T	20·42	125
Marple Top Lock	M. S. & L. R. Co.	9	3 6	543 T	21·85	134
,, Aqueduct	,, ,, ,,	9	3 6	321 T	19·25	136
Sale (Brooklands)	J. F. Jordan, Esq.	5	5 6	90	21·79	...
Godley Reservoir	J. F. Bateman, Esq. FRS.	12	...	500	18·64	...
Newton	M. S. & L. R. Co.	9	3 6	396 T	15·04	115
Mottram (Hill End)	,, ,, ,,	9	3 6	680 T	22·91	153
,, (Matley's Field)	,, ,, ,,	9	3 6	399 T	21·15	167
D Hadfield (Millbrook)	J. Sidebottom, Esq.	12	3 10	442 T	23·46	167
,, (,,)	,, ,, ,,	8	3 10	442 T	22·98	...
Arnfield Reservoir	,, ,, ,,	7	2 6	550	20·04	...
,, ,,	J. F. Bateman, Esq. FRS.	12	2 6	550	22·15	...
†Rhodes Wood Reservoir	,, ,, ,,	12	1 0	520	25·64	...
†Torrside Reservoir	,, ,, ,,	12	1 6	680	27·39	...
Staleybridge (Swineshaw)	,, ,, ,,	8	3 0	884 ⅄	28·06	...
†Woodhead Reservoir	,, ,, ,,	12	0 10	660	29·38	...
LANCASHIRE.						
D Garston (Grassendale Park)	Miss E. C. Abraham	5	1 0	35 T	23·84	180
D Aigburth (Kelton)	J. Sing, Esq.	5	1 0	135 T	23·20	159
Woolton (Roseleigh)	A. Tate, Esq.	12	4 6	170 B	25·01	...
D Warrington (Arpley)	T. Longdin, Esq.	10	10 3	33 ⅄	20·57	156
,, (Cemetery)	,, ,, ,,	10	1 0	32 ⅄	19·82	...
Liverpool (Grove Park)	J. R. Darsie, Esq.	3	6 0	160	22·07	150
D ,, (Hope Street)	G. Jevons, Esq.	5	1 0	150	23·11	168
D ,, (St. James's Mount)	Rev. W. Banister	5	1 1	150 ⅄	25·37	146
D Heaton Moor [Stockport]	F. W. Jordan, Esq.	5	1 0	235	20·72	152
D Walton (Breeze Hill)	WH Andersson, jun, Esq	5	1 11	119 ⅄	22·24	161

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
LANCASHIRE—(*con.*)						
Walton (Breeze Hill)	WH Andersson, jn., Esq.	8	1 2	119 B	22·53	161
Manchester (Withington) No. 1	J. King, jun., Esq.	5	1 0	110 T	20·64	135
,, (,,) No. 2	,, ,, ,,	5	1 0	110 T	20·79	135
,, (,,) No. 3	,, ,, ,,	8	1 0	110 T	20·43	135
,, (Stretford)	H. Royle, Esq., C.E.	5	1 0	86 ⅄	19·62	150
Denton Reservoir	J. F. Bateman, Esq. FRS.	...	...	324 T	18·57	...
Gorton	,, ,, ,,	...	...	263 T	18·48	...
Manchester (Plymouth Grove)	J. F. Roberts, Esq.	5	4 2	150 ⅄	21·71	138
,, (Ardwick)	J. Casartelli, Esq.	9	3 0	140 ⅄	21·26	131
,, (York Place)	E. Worthington, Esq.	6	0 9	125 T	20·69	135
,, (Embden Street)	J. Hart, Esq.	5	6 6	112 T	22·86	130
† ,, (Piccadilly)	M. S. & L. R. Co.	9	40 0	194 T	18·75	130
,, (Fairfield)	,, ,, ,,	9	6 0	312 T	23·78	128
,, (St. Bede's College)	Rev. L. C. Casartelli	8	82 11	176	18·59	137
Eccles (Worsley Hall)	Mr. W. B. Upjohn	8	10 0	80 L	19·66	100
Blundellsands (Park Corner)	T. M. Reade, Esq. C.E.	5	1 0	33 ⅄	23·31	188
Manchester (Newton Heath)	J. Warren, Esq.	5	1 0	242 ⅄	22·58	157
,, (Cheetham Hill)	W. B. Worthington, Esq	5	0 11	255	22·21	155
,, (Higher Broughton)	W. Wilson, Esq.	5	1 0	200	24·18	151
Ashton (Waterhouses)	M. S. & L. R. Co.	9	3 6	345 T	22·62	143
,, (Knott Hill)	J. Sidebottom, Esq.	...	...	...	20·80	...
*Maghull	I. Roberts, Esq.	5	1 0	68 ⅄	21·61	150
Prestwich Asylum	The Meteor. Council	8	1 0	295	23·94	169
,, Reservoir	J. F. Bateman, Esq. FRS.	...	...	347 T	21·53	...
†Oldham (Gas Works)	,, ,, ,,	5	4 0	600 T	21·26	...
,, (Brushes Clough)	,, ,, ,,	5	4 0	930 T	31·02	...
,, (,, ,,) *New g*	,, ,, ,,	...	...	955 T	26·13	...
Ormskirk (Aughton Springs)	G. Cooke, Esq.	5	...	..	21·58	...
Wigan Waterworks	W. Bolton, Esq.	8	1 6	225 T	22·12	155
Bolton-le-Moors (The Folds)	W. H. Watson, Esq.	10	3 6	286 T	27·92	...
,, (The Park)	W. W. Midgley, Esq.	5	1 0	390	27·54	151
,, (Heaton)	RH Swindlehurst Esq CE	6	1 3	500	24·10	172
,, (,,)	J. S. Holdsworth, Esq.	10	3 6	497 ⅄	27·16	148
,, (Hurst Bank)	J. Watkins, Esq.	5	3 1	442 ⅄	27·03	173
,, (Halliwell New Road)	W. Tyson, Esq.	5	1 6	470 B	31·29	153
,, (Smithills Hall)	R. H. Ainsworth, Esq.	8	1 4	507 T	29·89	139
Bury (Gin Hall)	T. Rigby, Esq.	8	1 0	475	26·13	125
† Milnrow (Piethorne Kitcliff)	J. F. Bateman, Esq. FRS	5	4 0	767 T	18·66	...
,, (,, Coldgreave)	,, ,, ,,	5	4 2	894 T	26·00	...
Rochdale (Park Observatory)	Dr. Henry	8	0 8	472	28·23	144
,, (Fieldhead)	S. S. Platt, Esq., C.E.	8	6 4	486 ⅄	24·55	153
,, (Stone Hill)	Miss Petrie	5	1 6	500	29·76	165
Ormskirk (Rufford)	J. Porter, Esq.	5	0 8	38 T	22·00	150
Bolton (Belmont)	RH Swindlehurst Esq CE	6	0 9	800	38·90	175
Rochdale (Nayden Dane)	J. Diggle, Esq., C.E.	5	1 6	900 T	25·54	...
,, (Facit)	T. S. Smithson, Esq.	5	0 6	855 T	34·91	184
Southport (Hesketh Park)	J. Baxendell, Esq.	5	2 8	23 ⅄	23·80	141
Entwistle	RH Swindlehurst Esq CE	7	1 0	700	31·30	176

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	LANCASHIRE—(*con.*)						
	Blackstone Edge (Windy Bank)	Rochdale Canal Compy*	10	1 6	600	19·30	...
	,, ,, ...	,, ,, ,, ...	10	1 9	1225	24·50	...
	,, ,, (Canal Summit)	,, ,, ,, ...	10	1 10	700	23·90	...
	,, ,, (Chelbourn) ...	,, ,, ,, ...	10	1 3	800	26·90	...
	,, ,, (Lenches)	,, ,, ,, ...	10	1 10	800	31·40	...
	,, ,, (Calf Lee).....	,, ,, ,, ...	10	1 6	960	25·20	...
D	Chorley (Shaw Hill)	Miss E. Crosse	5	1 2	200 ?	24·71	138
D	,, (Whittle-le-Woods) ...	Theodore J. Hare, Esq.	5	2 6	265 T	25·67	138
	Haslingden (Holden Wood).....	T. Rigby, Esq.	8	1 0	670	32·49	116
	,, (Calf Hey).....	,, ,, ...	8	1 0	800	32·33	116
	Chorley (Withnell Hall)	J. Shackleton, Esq. ...	5	0 6	545	29·14	...
	Over Darwen (Sunnyhurst Hey).	T. Duxbury, Esq.	8	2 0	915 T	26·75	122
	,, ,, (Earnsdale Res.)...	,, ,, ...	8	2 0	...	34·73	122
D	,, ,, (St. James's Vic.) .	Rev. W. H. Blamire...	5	1 0	564 ⊼	32·66	153
	,, ,, (Hoddlesden Res.)	J.B.McCallum Esq., C.E	8	4 0	680	33·50	155
	,, ,, (Daisy Green).....	,, ,, ,,	8	1 0	969 ⊼	30·96	126
	,, ,, (Pickup Bank) ...	,, ,, ,,	8	1 0	720 ⊼	32·13	127
	Blackburn (Guide Reservoir) ...	,, ,, ,,	8	1 0	650	26·05	151
	Oswaldtwistle Waterworks	R. N. Hunter, Esq. ..	6	0 6	635	30·02	131
D	Lytham (Woodville Terrace) ...	S. Stott, Esq.	8	2 1	...	23·60	200
	Blackburn (Pleasington)	J.B.McCallum Esq., C.E	8	2 6	232 ⊼	25·42	...
	,, (Witton)	,, ,, ,,	8	2 6	315 ⊼	28·28	138
	,, (Store Yard)	,, ,, ,,	8	30 0	373 ⊼	22·92	135
	,, (Water Works Office)	,, ,, ,,	8	60 0	436 ⊼	19·39	139
	,, (Pumping Station)...	,, ,, ,,	8	6 0	600 ⊼	29·46	132
D	Accrington (Warmden Reservoir)	R. Crossley, Esq.	8	1 9	650 T	28·76	105
D	,, (Washington House)..	E. Knowles, Esq.	5	30 0	530 ⊼	25·45	137
	,, (Milnshaw Grounds)..	Mr. Hargreaves.....	5	1 6	464 ⊼	26·83	131
	Preston (Corporation Offices) ...	H. Reah, Esq.	8	16 0	123	24·58	129
	†Rawtenstall (Clough Bridge Res.)	T. Rigby, Esq.	8	1 0	900 ⊼	29·35	152
Burnley Waterworks	†Causeway Side	W. Williamson, Esq.	8	2 0	1116	28·40	...
	†Sheddin	,, ,, ,,	8	2 0	960	28·50	...
	†Cant Clough, S. Side	,, ,, ,,	8	2 0	900	30·27	174
	† ,, ,, N. Side	,, ,, ,,	8	2 0	900	30·90	174
	†Rams Clough Head	,, ,, ,,	8	2 0	1260	28·13	...
D	Huncoat (Burnley Road Res.) ...	C. Harrison, Esq.	9	1 6	620 ⊼	28·62	159
	Clayton-le-Moors (Oakenshaw)..	J. H. Calvert, Esq. ...	5	10 0	388 T	29·24	111
†	Burnley (Yorkshire Street) ...	W. Williamson, Esq...	8	30 0	420 ⊼	24·55	164
†	,, (Swinden, Upper)	,, ,, ,, ...	8	12 0	820 ⊼	29·84	177
†	,, (,, Lower)	,, ,, ,, ...	8	2 0	745 ⊼	30·99	178
†	,, (Extwistle Moor)	,, ,, ,, ...	8	2 0	1310 T	33·32	...
	,, (Gawthorpe Hall)	Sir U.K.Shuttleworth Bt	8	1 3	316 T	29·70	103
D	Preston (Haighton)	J. J. Myres, Esq., C.E.	5	1 2	255 ⊼	26·56	155
	Alston	H. Reah, Esq.	8	1 2	320 ⊼	27·37	...
	Blackpool (South Shore)	G. Sharples, Esq.	10	1 8	29 T	24·53	...

* Returns supplied by C. R, Dykes. Esq.

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
LANCASHIRE—(*con.*)						
D Blackpool (Arnold House)	T. Ward, Esq.	5	1 0	32 T	23·89	141
Kirkham (Weeton)	J. Bradley, Esq.	10	1 0	95 T	26·77	...
Nelson (Coldwell Reservoir)	J. Newton, Esq., C.E.	8	2 0	950	18·81	...
D Eccleston (Elswick Lodge)	S. King, Esq.	10	1 4	50 T	25·46	146
,, (,, ,,)	,, ,, ,,	5	1 0	50 T	26·53	...
,, (,, ,,)	,, ,, ,,	5	...	50 T	25·92	...
D Stonyhurst College	Rev. S. J. Perry, F.R.S.	11	1 0	376 T	31·25	152
,, ,,	,, ,, ,,	11	2 0	377 T	30·62	150
,, ,, M	,, ,, ,,	11	1 0	376 T	31·19	...
Preston W. Works. Knowle Green	H. Reah, Esq.	8	1 2	400 T	29·44	...
Preston W. Works. Loud-scales	,, ,,	8	1 2	400 T	30·82	...
Preston W. Works. Spade Mill	,, ,,	8	1 2	400 T	29·45	...
Preston W. Works. Jeffrey Hill	,, ,,	8	1 2	900 T	30·88	...
D St. Michael's-on-Wyre No. 2	Rev. P. J. Hornby	5	1 0	26 T	27·94	138
D Beaton Fell (Barnsfold Res.)	J. J. Myres, Esq., C.E.	5	1 6	506 T	30·64	178
,, (,,) M	,, ,, ,,	5	1 6	506 T	30·55	...
D Garstang (Calder Mount)	C. Wilson, Esq.	5	10 0	110 T	25·92	158
,, (,, ,,) M	,, ,,	5	1 0	71 T	27·05	...
Clitheroe (Downham Hall)	R. Assheton, Esq.	10	1 6	464 T	30·38	...
Garstang (Barnacre Reservoir)	J. Bradley, Esq.	10	1 0	617 T	32·55	...
,, (Grizedale Reservoir)	,, ,, ,,	10	1 0	519 T	31·81	...
D Wyresdale (Abbeystead)	A. Creer, Esq., C.E.	8	1 0	366 T	33·15	128
,, (Old Gauge Basin)	,, ,, ,,	8	1 0	963 T	31·90	...
,, (Wardstone)	,, ,, ,,	8	1 0	1440 T	40·79	...
Lancaster (Southfield)	The late W. Roper, Esq.	12	3 6	114 T	29·79	181
,, (Escowbeck, Caton)	A. Greg, Esq.	12	3 0	150 T	28·50	108
Hest Bank	T. Ransome, Esq.	5	2 0	58 T	23·85	147
D Wray Vicarage	Rev. C. L. Reynolds	5	1 1	165 T	34·35	154
Barrow-in-Furness	W. Fergusson, Esq.	11	1 6	36 T	26·15	142
D ,, ,, (Cavendish Pk)	W. S. Whitworth, Esq.	8	1 0	60 T	24·28	157
Arkholme (Storrs Hall)	F. F. Pearson, Esq.	5	1 0	220	31·12	...
D Ulverston (Urswick)	Rev. R. B. Billinge	5	2 6	...	29·48	155
Cartmel (Flookburgh)	T. R. Croasdale, Esq.	5	2 7	70 B	26·26	...
† ,, (Holker)	Mr. W. Fox	8	4 8	155 T	28·28	154
Grange (Nutwood)	Rev. E. Massie	5	2 6	100 B	27·86	170
D Ulverston (Poaka Beck)	Mr. W. Fergusson	11	1 6	512 T	35·17	168
D Cartmel (Pit Farm)	Mr. W. R. Nash	5	1 0	122 T	30·34	162
,, (Broughton Hall)	Col. Ainsworth	5	2 8	210 T	31·04	163
D Ulverston (Colton)	Rev. A. Christopherson	5	1 0	226 T	36·20	149
D Broughton in Furness	Rev. F. A. Malleson	5	1 3	40	37·43	123
Blawith	Rev. J. Ashburner	5	0 10	...	41·02	...
D Broughton (Woodland Rectory)	Rev. E. C. Shawfield	5	1 4	100 T	39·94	143
Coniston (Torver Rectory)	Rev. T. Ellwood	5	0 6	400 T	50·60	...
Hawkshead (Grizedale Hall)	W. G. Ainslie, Esq., M.P.	5	1 0	325	43·47	164
D ,, (Esthwaite Lodge)	Major Alcock-Beck	5	3 6	232 T	43·83	170
,, (,, Strickland Ease)	,, ,, ,,	5	3 6	254 T	36·99	...
D Monk Coniston Park	V. Marshall, Esq.	5	1 4	305	51·95	128

DIVISION IX.—YORKSHIRE.

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
WEST RIDING.						
†Sheffield (Brincliffe Rise)	A. W. Chadburn, Esq.	5	1 0	500 T	21·02	154
† ,, (,, Edge)	M. S. & L. R. Co.	9	3 6	336 T	22·45	147
† ,, (Redmires)	E. M. Eaton, Esq., C.E.	10	5 0	1110 T	24·78	178
,, (,,) *weekly*	,, ,,	8	4 0	1100 T	25·15	...
D ,, (Tylecote, Ranmoor)	J. Dixon, Esq.	10	3 6	610 R	25·70	148
D† ,, (Broomhall Park)	D. Doncaster, Esq.	10	2 0	330 R	18·49	139
,, (Rivelin)	E. M. Eaton, Esq., C.E.	10	4 0	564 R	22·13	152
,, (,,) *weekly*	,, ,, ,,	8	4 0	564 R	22·00	...
† ,, (Crookes)	,, ,, ,,	10	2 0	629 R	18·74	150
† ,, (,,) *weekly*	,, ,, ,,	8	2 0	629 R	18·45	...
D ,, (Weston Park)	E. Howarth, Esq.	8	1 0	430 R	19·25	153
D†Rotherham (Ulley Reservoir)	Mr. L. Berry	5	1 0	184 R	15·45	120
†Sheffield (Victoria Station)	M. S. & L. R. Co.	9	3 6	188 T	15·40	132
† ,, (Tinsley Locks)	,, ,, ,,	9	...	143 T	15·58	123
Tickhill (Sandbeck Park)	Mr. G. Summers	8	1 0	150 T	17·45	149
†Rotherham (Moorgate Grove)	R. Chrimes, Esq.	5	1 0	262 R	17·38	152
,, (Thrybergh)	W.H.Crabtree,Esq.C.E	8	1 0	184 R	15·71	122
D Tickhill	G. G. Phillips, Esq.	8	1 0	61 R	17·62	153
D Sheffield (Chapeltown)	Mr. D. Bell	8	4 0	582 L	18·32	153
Doncaster (Firsby)	W.H.Crabtree,Esq.C.E	8	1 3	189 R	19·58	140
D Bolsterstone (Waldershaigh)	C. M. Wilson, Esq.	8	3 1	950 T	21·95	153
Wortley	M. S. & L. R. Co.	...	...	548	19·98	138
Elsecar	,, ,, ,,	9	...	175 T	16·87	130
D Wath-upon-Dearne (Chapel St).	Dr. Burman	8	1 0	185 R	17·08	150
D ,, (West Melton)	W. Jackson, Esq.	6	0 10	172 T	17·39	105
D ,,	J. N. Baxter, Esq.	5	1 0	100 R	18·03	153
Worsborough	M. S. & L. R. Co.	9	...	225 T	17·22	144
D Stainborough(WentworthCastle)	W. Fisher, Esq.	8	2 6	520 T	20·06	142
Doncaster	M. S. & L. R. Co.	9	...	35 T	15·47	139
,, (Pumping Station)	WHR.Crabtree,EsqCE	8	0 6	30 R	17·35	130
D ,, (Magdalens)	Mr. J. Howorth	5	4 6	46 T	16·21	135
†Dunford Bridge Station	M. S. & L. R. Co.	9	3 6	954 T	26·81	146
† ,, ,, (Reservoir)	J.F.Bateman,Esq.F.RS	12	2 0	1100 T	30·25	...
Greenfield (Yeoman Hay)	J. Sidebottom, Esq.	...	...	...	34·10	...
†Penistone (Carlcotes)	M. S. & L. R. Co.	9	3 6	1075 T	22·03	150
† ,,	,, ,, ,,	9	3 6	717 T	21·46	157
,, (Hazlehead)	,, ,, ,,	9	...	868 T	28·06	166
D ,, (Ingbirchworth Res.)	J. H. Taylor, Esq. C.E.	8	1 3	850 R	20·41	141
Holmbridge (Batley Waterworks)	J.F.Bateman,Esq.FRS.	...	...	917	39·60	...
,, (Wessenden Head)	J. Stanway, Esq.	8	...	1270	28·98	...
D Barnsley (Church Street)	Dr. Sadler	5	5 2	350 R	17·20	159
,,	J. H. Taylor, Esq., C.E.	8	15 0	350	17·22	151
,,	M. S. & L. R. Co.	9	...	175 T	15·36	150
D Dobcross	G. F. Burd, Esq.	5	1 0	...	30·61	139
Saddleworth Station M	W.B.Worthington, Esq	5	4 2	630 T	26·65	...
Strinesdale [Oldham]	J.F.Bateman,Esq.C.E.	5	4 0	815	22·65	...
†Meltham (Harden Moss)	J. Stanway, Esq.	8	1 2	1212 T	28·84	...
Standedge (Castleshaw)	J.F.Bateman, Esq. C.E.	...	...	876	26·64	...

DIVISION IX.—YORKSHIRE—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1887	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
WEST RIDING—(*con.*)						
Meltham (Brow Grains)	J. Stanway, Esq.	...	...	900	27·85	...
Denshaw (New Year's Bridge)	J.F.Bateman, Esq. FRS	5	4 0	1012 T	28·03	...
,, (Ready Con Dean)	,, ,, ,,	...	...	1414	24·97	...
D Meltham (Harewood Lodge)	C. L. Brook, Esq.	8	4 10	514 L	24·18	160
† ,, Grange	J. Stanway, Esq.	8	1 2	850 T	24·63	...
Marsden (Deer Hill)	,, ,, ,,	...	...	1149 T	27·57	...
Doncaster (Hatfield)	Mr. T. Askren	5	5 4	...	15·69	148
,, (Kirk Bramwith)	B.S.Brundell, Esq. C.E.	5	1 0	17 ⅄	14·38	123
D ,, (Owston)	H. Ripley, Esq.	8	1 0	50 ?	16·72	137
D ,, (Burghwallis Rec.)	Rev. F. W. Peel	5	1 0	80 T	16·84	163
,, (,, ,,)M	,, ,, ,,	5	1 6	80 T	15·51	...
D Slaithwaite (Blackmoorfoot)	J. Stanway, Esq.	8	1 0	800 T	25·60	175
D Honley (Northgate House)	Miss E. Brooke	5	1 0	350 T	24·58	174
,, (,, ,,)M	,, ,,	5	1 0	350 T	22·40	...
Wakefield (Woolley)	Henley Eden, Esq.	5	1 0	318	17·27	...
D ,, (Walton)	E. Simpson, Esq.	5	0 3	150	18·80	155
Huddersfield (BankField, Golcar)	J. E. Ramsden, Esq.	5	1 0	400 T	26·09	161
D† ,, (Dalton)	J. W. Robson, Esq.	8	1 0	350 ⅄	19·49	154
Longwood (Bilberry Edge)	J. Stanway, Esq.	8	1 2	1090 T	22·43	...
D Mirfield (Cote Wall)	E. B. W. Balme, Esq.	8	0 9	200	18·04	134
D† Wakefield Prison	Dr. H. Clarke	8	1 0	96 ⅄	17·33	150
,, (Alverthorpe Hall)	H. Clarkson, Esq.	5	1 0	150 T	16·69	127
D Rastrick	J. T. Clay, Esq.	5	1 3	410 T	19·78	113
D Wakefield (Stanley Vicarage)	Rev. R. Burrell	5	1 0	100 T	14·10	151
D ,, (Field Head)	R. Porter, Esq.	8	1 0	250 T	13·62	132
D Goole	C. Grant, Esq.	5	1 0	18 T	15·21	119
D Halifax (Moorside)	L. J. Crossley, Esq.	8	0 6	426	22·83	163
,, (Bents, Norland) M	J. S. Rawson, Esq.	5	0 8	800 T	23·49	...
D ,, (Bermerside Observatory)	J. Gledhill, Esq.	8	0 6	500	24·27	148
,, (Thorpe) M	J. S. Rawson, Esq.	8	0 8	345 T	28·21	...
D ,, (,,)	,, ,,	5	0 8	345 T	28·29	174
† ,, (Albert)	J. A. Paskin, Esq., C.E.	5	1 0	795 T	24·87	...
† ,, (Gibbet)	,, ,, ,,	5	6 0	568 T	22·37	...
† ,, (Ramsden Wood)	,, ,, ,,	8	1 2	816 T	27·21	...
D Leeds (Methley Park)	J. Richardson, Esq. C.E.	5	0 9	98 ⅄	17·19	125
Halifax (Castle Carr)	J. A. Paskin, Esq., C.E.	...	...	1060 T	28·64	..
† ,, (Midgley Moor)	,, ,, ,,	7	0 6	1350 T	30·17	...
† ,, (Warley Moor)	,, ,, ,,	7	0 6	1425 T	30·22	...
† ,, (Ogden)	,, ,, ,,	8	1 3	990 T	29·25	...
,, (Ovenden)	,, ,, ,,	...	...	1375	31·39	...
,, (Widdop)	,, ,, ,,	...	...	1050	31·50	...
† ,, (Walshaw Dean)	,, ,, ,,	8	0 3	1380 T	30·04	...
D South Milford Rectory	Rev. F. J. Young	5	1 4	60 ⅄	17·05	164
Leeds (Wortley Res.)	T. Hewson, Esq., C.E.	8	0 9	307 ⅄	20·16	152
Bradford (Queensbury)	R. J. Foster, Esq.	8	2 2	1050	24·10	...
,, (Brayshaw Reservoir)	A. R. Binnie, Esq., C.E.	5	1 0	982 ⅄	26·17	175
,, (The Exchange)	J.McLandsborough, Esq	8	65 6	395 ⅄	18·66	160
,, (Farcliffe)	E. Milnes, Esq.	5	1 0	575 T	22·76	154

DIVISION IX.—YORKSHIRE—(*continued*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above SeaLevel feet.	Depth of Rain. 1887 inches.	Days on which '01 or more fell.
	WEST RIDING—(*con.*)							
	Bradford (Stubden) *old gauge* ...	A.R.Binnie,Esq.,C.E ..	8	1	0	1075 ⅄	33·34	196
	,, (,,)	,, ,, ,, ...	5	1	0	1071 ⅄	30·93	196
	,, (Nan's Scar) .....M	,, ,, ,, ...	5	1	0	1101 T	30·76	...
	,, (Stairs) .....M	,, ,, ,, ...	5	1	0	1401 ⅄	29·85	...
	,, (Leeming Res.) .....M	,, ,, ,, ...	5	1	0	850 ⅄	30·27	...
	,, (Doe Park) *old gauge* ..	,, ,, ,, ...	8	1	0	810 ⅄	29·96	191
	,, (,, ,,)	,, ,, ,, ...	5	1	0	811 ⅄	27·33	191
	,, (Leeshaw Res.) ..... M	,, ,, ,, ...	5	1	0	875 ⅄	28·28	...
	,, (Chellow Dean)	,, ,, ,, ...	5	1	0	645 ⅄	22·87	129
	,, (Hewenden Reservoir)..	,, ,, ,, ...	5	1	0	701 ⅄	22·86	170
	,, (,, ,,) *old g.*	,, ,, ,, ...	5	1	0	700 T	26·03	170
	,, (Heaton Res.) ...*old g.*	,, ,, ,, ...	8	1	0	530 ⅄	20·43	139
	,, (,, ,,)	,, ,, ,, ...	5	1	0	531 ⅄	19·29	139
†	Leeds (Holbeck)	J. Marshall, Esq.	10	32	0	127 ⅄	14·91	128
	,, (,,)	,, ,, ,, ...	5	1	8	95 ⅄	15·46	128
	,, (,, W. WorksDepot)	T. Hewson, Esq., C.E..	8	0	9	93 ⅄	15·62	149
	,, (Museum).....	W. Eagle Clarke, Esq.	8	46	0	180	16·54	160
	,, (Woodhouse Moor).....	T. Hewson, Esq., C.E.	8	0	9	307 ⅄	16·70	148
D	,, (,, Cliff)	R. Reynolds, Esq.....	5	1	0	330	18·75	158
	,, (Weetwood Reservoir) ...	T. Hewson, Esq., C.E.	8	0	9	328 ⅄	18·15	145
	Shipley (Moor Head).....	G. Knowles, Esq.	8	10	0	500	17·57	...
D	Leeds (Allerton Hill)	T. Fenwick, Esq., C.E.	5	0	7	418 ⅄	19·17	148
	,, (Lawns Wood, Adel).....	Mr. C. S. Irvine	5	1	0	475 T	19·54	152
D	,, (Oliver Hill, Horsforth)...	C. France, Esq.	3	0	9	250 T	20·12	176
	Bingley (Gilstead Filters)	A. R. Binnie, Esq., C.E.	5	1	0	572 ⅄	21·84	154
	Shipley (Esholt Vic.).....	Rev.J.Myddleton Evans	8	1	2	150	20·12	133
	Leeds (Eccup South).....	T. Hewson, Esq., C.E..	8	0	9	390 T	19·78	154
	,, (,, East)	,, ,, ,, ...	8	0	6	375 ⅄	19·72	164
†	Bingley (Sunnydale).....	A.R. Binnie, Esq., C.E.	5	1	0	975 T	21·45	163
	Harewood (Arthington)	T. Hewson, Esq., C.E.	8	0	9	139 ⅄	19·30	145
	Skipton(GillGrange,Silsden) ...M	A.R. Binnie, Esq., C.E.	5	1	0	883 T	17·66	...
D	Ilkley	G. W. Worfolk, Esq...	5	1	6	312 L	21·25	145
†	,, (Cherry Bank)	H. Richardson, Esq. ...	8	1	3	600	22·35	...
	Skipton (Silsden Reservoir)	A.R. Binnie, Esq., C.E.	5	1	0	560 ⅄	19·10	133
D	Thornton-in-Craven	Miss Wilson	5	5	4	456 ⅄	24·68	156
	Leathley (Lindley Wood S).....	T. Hewson, Esq., C.E..	8	0	6	312 T	22·72	165
	,, (,, ,, N).....	,, ,, ,, ...	8	0	6	320 T	22·61	166
	Slaidburn (Hareden Brook)	H. Reah, Esq.	8	1	2	540	47·44	...
	,, (Langden Brook).....	,, ,, ...	8	1	2	556	48·90	...
	,, (Whiteholme)	W. K. Wilkinson, Esq.	5	1	3	475 T	34·79	126
	Skipton (Cringle's Reservoir) ...	A. R. Binnie, Esq., C.E.	5	1	0	760 T	20·10	133
	,, (Counter Hill) .....M	,, ,, ,, ...	5	1	0	951 ⅄	20·32	...
	,, (Chelker Reservoir) ...M	,, ,, ,, ...	5	1	0	730 ⅄	20·61	...
	,, (*Craven Herald* Office)...	E. Townsend, Esq.....	8	0	8	360	22·12	138
	Slaidburn (Dunsop Houses)	J.B.McCallumEsq.,C.E	8	1	0	450 T	45·21	150
	,, (Middle Knoll)	,, ,, ,, ...	8	2	6	1298 ⅄	36·69	...
	,, (Brennand)	,, ,, ,, ...	8	1	0	820 ⅄	46·80	154
	,, (Whitendale)	,, ,, ,, ...	8	1	0	830 ⅄	47·88	150

DIVISION IX.—YORKSHIRE—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea level	Depth of Rain. 1887	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	WEST RIDING—(*con.*)						
	Slaidburn (Cabin Hill)..	J.B.McCallumEsq.C.E.	8	3 1	1559 ⊼	43·94	...
	,, (Baxton Fell)	,, ,, ,, ...	8	2 6	1540 ⊼	30·68	...
	York (Phil. Soc. Gardens)	The Meteor. Council ...	8	1 9	53 ⊼	17·42	175
D	,, (Cherry Hill)	H. Richardson, Esq. ...	5	1 6	60 T	16·45	153
	Wetherby (Ribston)	Mr. Jones	5	1 2	130 ⊼	17·77	102
	Fewston (Swinsty E)	T. Hewson, Esq., C.E.	8	0 6	460 T	24·85	163
	,, (,, W)	,, ,, ,,	8	0 6	425 T	24·72	163
	,, (Timble)	,, ,, ,,	8	0 6	720 T	26·64	187
	,, South	,, ,, ,,	8	0 6	525 T	25·61	168
	,, North	,, ,, ,,	8	0 6	525 T	23 98	168
	,, (Spinksburn)	,, ,, ,,	8	0 6	620 T	23·67	171
	Blubberhouses	,, ,, ,,	8	0 6	525 T	26·53	172
D	Harrogate (West End Park) ...	J. H. Wilson, Esq.	5	1 0	412 ⊼	21·59	160
	Skipton (Barden Res.) *old g.* ...	A. R. Binnie, Esq., C.E.	8	1 2	746 ⊼	28·06	171
	,, (,, ,,)	,, ,, ,, ...	5	1 0	746 ⊼	29·59	171
	Otterburn-in-Craven	W. Gomersall, Esq. ...	5	1 0	510 ⊼	29·67	129
	West End	T. Hewson, Esq., C.E.	8	0 6	787 T	27·63	168
	,, ,, (Thruscross)	,, ,, ,,	8	0 6	900 T	28·35	183
	Skipton (Upper Res., Barden) ...	A. R. Binnie, Esq., C.E.	5	1 0	1250 ⊼	29·91	163
	,, (Thorpe Fell ,,)...M	,, ,, ,,	5	1 0	1661 ⊼	23·80	...
	,, (SandbedBeck, Burnsall)	,, ,, ,,	5	1 0	676 ⊼	29·44	...
	Knaresborough (Conyngh'm Hall)	B. T. Woodd, Esq.	5	1 2	200	20·22	109
	,, (Farnham)	R. Elmhirst, Esq.	5	1 0	...	18·92	...
D	Settle (Ashfield Gardens)	Mr. T. Green, Junr. ...	5	2 6	483 T	32·84	158
D	,, (The Terrace)	J. W. Shepherd, Esq..	8	1 2	525 ⊼	30·26	178
	PateleyBdg.(GrimwithRes) *old g.*	A. R. Binnie, Esq., C.E.	8	1 0	890 ⊼	34·02	189
	,, ,, (,, ,,)	,, ,, ,, ...	5	1 0	893 ⊼	33·65	189
	,, ,, (,,Trunla Hill)...M	,, ,, ,, ...	5	1 0	1201 ⊼	27·23	...
D	Malham Tarn	Mr. Coulthard	5	1 0	1296 ⊼	41·30	190
	Settle (Clapham)	Rev. M. T. Farrer	8	5 7	565 T	30·09	174
	Ripon (North Lodge)	F. D. Wise, Esq.	5	1 0	120	20·38	...
D	Ingleton (Halsteads)	R. Chapman, Esq.	9	2 0	414 T	33·94	153
	Nidderdale (Ramsgill)	T. Hewson, Esq., C.E.	8	0 6	500	38·42	170
D	Arncliffe	Ven. Archdeacon Boyd	8	2 9	734 T	42·36	188
	Nidderdale (Middlesmoor)	T. Hewson, Esq., C.E.	8	0 6	600	35·54	161
D	Ripon (High Bank, Mickley) ...	Miss Harrison	5	1 0	225 T	24·41	170
	Oughtershaw School	C. H. L. Woodd, Esq..	8	1 6	1175 T	51·83	...
D†	Sedbergh (Brig Flatts)	J. Handley, Esq.	5	1 0	300 T	35·60	162
D	,, (Wesley Villa)	Rev. J. Watson	8	1 0	426 T	41·09	...
†	,, (Thorns Hall)	Miss Sedgwick	5	1 0	400 T	35·46	165
	EAST RIDING.						
	Patrington (Spurn Head)	The Meteor. Council ...	8	1 0	27	15·00	...
D	,,	W. B. Pugh, Esq.	5	3 0	46 ⊼	16·00	128
	Hull (Nelholme, Ferriby)	W. R. King, Esq.	5	3 6	125 T	16·05	...
D	,, (Derringham)	W. Lawton, Esq.	5	2 0	10 ⊼	17·52	165
D	,, (People's Park) ...	Mr. E. Peak	5	0 6	6	17·57	170
	Hedon (The Vicarage)	Rev. J. H. Richardson	5	1 0	...	17·06	165

DIVISION IX.—YORKSHIRE—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground.	Height Above Sea level	Depth of Rain. 1887	Days on which '01 or more fell.
			ft. in.	feet.	inches.	
EAST RIDING—(*con.*)						
Brough (Brantinghamthorpe) ...	Mr. R. C. Kingston	5	2 0	200 T	20·63	...
D Cottingham.....	J. H. Hill, Esq.....	8	1 3	26	16·56	147
Market Weighton (Houghton)...	Canon J. Wells	5	1 0	200 ?	18·11	...
Beverley (Alexandra Terrace) ...	T. Dyson, Esq.	12	6 0	62 ⅄	17·20	142
D ,, (Hull Bridge)	J. Tiffen, Esq.	5	2 6	11 ⅄	18·06	170
D ,, (Cherry Burton)	Baldwin Latham Esq CE	5	1 0	...	21·40	140
D Market Weighton (Dalton Hall)	Mr. J. Allsop	8	1 4	150 T	20·00	150
D Holme-on-the-Wolds.....	Mrs. Harland	5	4 0	154 ⅄	17·48	122
Middleton-on-the-Wolds	Rev. H. D. Blanchard..	5	1 0	150 T	20·73	160
D Brandesburton (Hempholm).....	J. Tiffen, Esq.	5	2 6	11 ⅄	17·57	173
D Pocklington (Warter)	J. Coxon, Esq.	5	1 10	230 T	19·10	143
Catton Rectory [York]	Rev. H. L. Puxley ...	5	1 0	50 T	17·61	...
D Driffield (Beverley Road).....	Rev. J. T. Harwood ...	8	8 0	68 T	18·03	177
Wetwang	Rev. E. M. Cole	5	1 0	235 T	19·19	155
D Thixendale.....	Rev. W. H. Fox	10	0 9	425 T	19·22	182
D Lowthorpe (The Elms)	H. Onslow Piercy, Esq.	5	1 0	63 ⅄	19·32	182
Bridlington Quay	Mr. J. Draffin.....	5	1 6	40 L	14·88	111
D Hunmanby (Foxholes Rectory)..	Rev. R. H. Foord	5	1 0	234 T	27·40	188
,, (Wold Newton).....	Rev. T. S. Ackland ...	5	1 6	194	25·52	152
NORTH RIDING.						
†Malton	H. Hurtley, Esq.	10	1 0	75 T	19·60	...
D Melmerby (Baldersby)	W. Gregson, Esq.....	5	1 0	101 T	19·67	116
Oswaldkirk (The Hermitage) ...	R. Thompson, Esq. ...	5	0 8	425	21·71	104
D Thirsk (Sowerby)	C. M. Swarbreck, Esq..	5	1 0	105 T	18·31	149
,, (,, Rose Cottage)..	A. C. Bamlett, Esq. ...	5	1 0	118	20·48	170
D Masham (Burton House)	B. Carter, Esq.	6	1 0	269 T	21·42	136
Helmsley.....	R. Bruce Low, Esq., M.D.	5	1 3	185 ⅄	23·94	136
Pickering (The Rectory)	Rev. G. H. Lightfoot..	5	1 0	150	21·50	145
D Bedale (Thorpe Perrow)	Mr. W. Culverwell ...	5	1 6	170	19·20	135
Hawes Junction.....	The Meteor. Council ...	8	1 0	1135	48·20	...
D Aysgarth Vicarage.....	Rev. F. W. Stow	8	1 0	659 T	28·98	162
Leyburn	G. W. Wray, Esq.....	7	1 0	660 T	27·87	...
,, (Bolton Hall)	Mr. E. Hall.....	8	0 8	420	24·87	...
,, (,, ,,)	,, ,, ...	5	1 0	420	24·96	107
Hambleton Hills (High Paradise)	A. C. Bamlett, Esq. ...	5	1 0	1050	20·12	102
D†Hawes (Hardrow Vicarage)	Rev. R. Pinck.....	5	1 0	790 ⅄	33·10	189
,, (Shaw Paddock, Lunds)..	,, ,, ...	5	1 0	1100 T	49·34	...
*Northallerton (The Lodge)	J. Hodgson, Esq.	5	1 3	133 ⅄	19·10	...
Catterick (Tunstall)	J. Marshall, Esq.	5	1 0	275	16·32	...
Richmond (The Grove)	G. Roper, Esq.	5	1 3	...	23·73	...
Northallerton (Rounton Grange).	The Royal Meteor. Soc.	8	1 0	250	21·34	178
D Robin Hood's Bay (Fylingdales Vic)	Rev. R. J. Cooper	5	0 5	120	26·57	...
D Ingleby Manor	The Hon. H. Sidney ...	5	0 11	440 T	30·08	154
D ,, Greenhow Vicarage.....	Rev. J. Hawell	5	1 0	448 T	29·74	185
D East Layton [Darlington]	Mrs. Maynard-Proud...	5	1 0	575 T	22·41	129
D Richmond (Forcett Park).....	J. Michell, Esq.	5	1 0	360 T	22·96	173
Whitby (Guisborough Road) ...	M. Simpson, Esq.	5	2 0	184 ⅄	22·07	156

DIVISION IX.—YORKSHIRE—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1887	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	NORTH RIDING—(*con.*)						
	Bowes	G.J.Symons,Esq.F.R.S	8	1 0	...	20·10	...
	Guisborough (Hutton Hall)	SirJ.W.Pease,Bt.,M.P.	5	1 3	400 T	27·74	173
D	,, (LockwoodBeckRes)	W. I'Anson, Esq., C.E.	8	1 0	632 ⅄	32·56	181
	Middlesborough (Albert Park)	J. Mansergh, Esq.,C.E.	...	...	...	19·40	...
D	Saltburn (Skelton Reservoir)	W. I'Anson, Esq., C.E.	8	1 0	325 ⅄	24·27	170
	Mickleton	G.J.Symons,Esq.F.R.S	8	...	...	23·05	...
†	,, (Lime Kiln Pasture)M	,, ,, ,,	8	1 0	1175 T	20·70	...
†	,, (,, ,, ,,)M	,, ,, ,,	8	1 0	1175 T	22·90	...
	Redcar (Kirkleatham)	W.Stainthorpe,Esq MD	...	...	...	24·40	156
	,, (High Cliffe, Coatham)	Rev. J. E. Leefe	5	1 4	...	19·28	...

DIVISION X—NORTHERN COUNTIES.

	DURHAM.						
D	Darlington (Hurworth Grange)	J. E. Backhouse, Esq.	5	1 0	161 ⅄	20·23	169
D	Yarm (Eaglescliffe Rectory)	Mrs. Hull	...	...	...	17·25	119
D	Darlington (South End)	Mr. N. Black	8	0 10	140	20·22	149
D†	,, (Cleveland Parade)	S. Hare, Esq.	5	1 0	160 T	19·86	159
D	Barnard Castle (Whorlton)	Miss Dodgson	5	0 11	424 T	22·47	...
†	Staindrop (Raby Castle)	Mr. J. Tullett	8	0 8	460 T	20·80	...
D	Witton-le-Wear (Witton Tower)	W. R. J. Hopkins, Esq.	5	0 8	420	22·65	121
D	Hartlepool (Heugh Lighthouse)	W. Belk, Esq., C.E.	5	0 6	34 ⅄	22·60	171
D	,, (Hurworth Burn)	T. Fenwick, Esq., C.E.	5	0 7	360	24·87	114
D	,, (Hart Reservoir)	,, ,, ,,	8	0 9	164	23·40	117
D†	Wolsingham	Mr. A. Mitchell	5	1 0	464 ⅄	26·07	175
	Thornley Vicarage	Rev. W. Mayor	5	1 0	475 ⅄	24·18	182
	Durham	The Meteor. Council	12	4 0	340	21·51	180
D	,, (Ushaw College)	Rev. J. Corbishley	5	0 10	600 ⅄	22·06	178
	Weardale W.W. (Waskerley 6)	R. Askwith, Esq.,C.E.	8	4 2	1229 ⅄	21·03	101
	,, ,, (,, 3)	,, ,, ,,	8	4 6	1433 ⅄	21·34	...
	,, ,, (,, 4)	,, ,, ,,	8	4 7	1321 ⅄	20·90	...
	,, ,, (,, 5)	,, ,, ,,	8	4 2	1244 ⅄	20·80	...
	,, ,, (,, 2)	,, ,, ,,	8	4 5	1367 ⅄	21·26	...
	,, ,, (,, 1)	,, ,, ,,	8	4 4	1317 ⅄	20·21	...
D	Seaham Harbour Cemetery	Mr. R. Leith	8	1 6	150	25·13	177
	Seaham Vicarage	Rev. A. Bethune	5	0 6	80 T	25·23	...
	,, Hall	Mr. R. Draper	5	1 0	100 ⅄	27·19	...
	Houghton-le-Spring (Myre Hall)	D. Balfour, Esq., C.E	5	1 0	261 T	24·05	143
D	Shotley Bridge	Mr. J. Coulson	5	0 8	345 T	27·78	138
D	Chester-le-Street (Birtley)	R. C. Clephan, Esq.	5	0 9	205 ⅄	23·50	189
	Sunderland(W.HendonHo) No.2.	T. W. Backhouse, Esq.	5	1 0	132 ⅄	24·78	...
	,, (,, ,,)No.4.	,, ,, ,,	5	1 0	132 ⅄	25·49	...
D	,, (,, ,,)No.5.	,, ,, ,,	5	1 0	132 ⅄	24·99	176
D	,, (Fever Hospital)	Dr. A. E. Harris	8	0 8	109 T	24·08	157
D	Gateshead (Eighton Cottage)	Miss Favell	5	2 6	515	24·16	160
D	South Shields (Borough Hospital)	J. R. Boyce, Esq.	5	1 0	90 T	24·44	164

DIVISION X.—NORTHERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1887	Days on which ·01 or more fell
			ft. in.	feet.	inches.	
NORTHUMBERLAND.						
D Haltwhistle (Shaft Hill)	Mr. R. Hetherington	5	0 8	626 T	30·77	132
D ,, (Unthank Hall)	Rev. Dixon Brown	5	0 9	380 T	28·09	163
D Haydon Bridge (Ridley)	Rev. G. Reed	5	2 8	340 T	28·29	136
D Newcastle (Clifton Road)	R. Foster, Esq.	8	1 6	314 ⅄	21·02	165
,, (,, ,,) M	,, ,, ,,	5	1 0	314 ⅄	21·89	...
D ,, (Osborne Road)	T. G. Hurst, Esq.	5	0 8	170 T	21·31	152
,, (Philos. Society)	W. Lyall, Esq.	8	1 7	105 T	21·92	...
,, (Portland Road)	Mr. T. Bone	4	9 6	...	22·16	135
D ,, (Town Moor)	Mr. W. Neill	5	0 6	201 ⅄	22·81	180
,, (Wellburn, Jesmond)	W. H. Holmes, Esq.	5	1 6	161 T	21·30	155
North Shields (Wallsend)	R. R. Dees, Esq.	10	0 6	100 ⅄	22·39	...
,, (Post Office)	The Meteor. Council	8	1 4	100	21·74	...
D† ,, (Rosella Place)	R. Spence, Esq.	8	1 0	124 ⅄	23·92	163
,, (Low Lights)	J. R. Procter, Esq.	8	3 4	22 ⅄	23·77	...
D ,, (Tynemouth)	P. J. Messent, Esq., C.E.	5	1 8	65 ⅄	22·39	172
,, (Clementhorpe)	J. R. Procter, Esq.	5	1 0	150 ⅄	23·59	157
,, (Monkseaton)	T. Green, Esq.	5	4 0	132 T	19·98	...
Bingfield House	J. Coppin, Esq.	5	1 0	445 T	24·11	...
Newcastle and Gateshead W. Works: Whittle Dean	G. Smith, Esq.	10	...	...	19·67	...
Newcastle and Gateshead W. Works: Swinburn (Woodford)	,, ,, ,,	10	0 6	500 ⅄	25·80	...
Newcastle and Gateshead W. Works: North Tyne (Green Crag)	,, ,, ,,	10	0 6	800 ⅄	25·05	...
Newcastle and Gateshead W. Works: ,, ,, Valley	,, ,, ,,	10	0 6	300	21·39	...
Newcastle and Gateshead W. Works: Hallington	,, ,, ,,	10	0 6	469 ⅄	24·37	...
Newcastle and Gateshead W. Works: ,, (Fawcett)	,, ,, ,,	10	0 6	563 ⅄	23·43	...
Newcastle and Gateshead W. Works: Gunnerton Burn (Camphill)	,, ,, ,,	10	0 6	676 ⅄	22·85	...
Cramlington	The Roy. Meteor. Soc.	5	1 1	256	24·28	166
D Morpeth (Meldon Park)	Mr. J. Finlay	5	1 0	...	25·03	150
D ,, (Bothalhaugh Garden)	Hon. & Rev. W. C. Ellis	5	0 10	35 ?	25·56	193
,, (,, ,,) M	,, ,,	...	...	...	24·12	...
Rothbury (Brenckburn Priory)	A. H. Cadogan, Esq.	8	1 2	257 T	25·29	...
D ,, (Cragside)	Sir W. G. Armstrong, CB	8	1 0	400 ⅄	28·29	110
D Alwinton (Harbottle Castle)	Mr. R. Elliott	5	1 0	500	28·32	134
,, (Biddleston Hall)	P. Dodds, Esq.	5	1 0	820 T	31·90	145
Alnwick (Belle Vue House)	J. J. Horsley, Esq.	5	0 4	304 T	21·60	149
,, Castle	The Meteor. Council	5	0 4	178	26·52	168
D Howick Hall	Rt. Hon. Earl Grey, K.G.	8	0 10	121 ⅄	24·44	134
Ilderton (Lilburn Tower)	E. J. Collingwood, Esq.	10	6 0	300 T	25·51	...
Cheviot (Broadstruther) M	G. P. Hughes, Esq.	8	4 0	1692 ⅄	46·38	...
Bamburgh	Mr. W. C. Good	5	1 0	75 L	22·61	142
D Pawston [Coldstream]	B. P. Selby, Esq.	8	1 0	328 T	26·70	182
Wooler (Milfield)	G. Grey, Esq.	5	0 8	200 ⅄	22·03	...
CUMBERLAND.						
Ravenglass (The Grove)	J. Ross, Esq.	5	2 6	80 ⅄	30·41	109
,, (Irtside, Holm Rook)	J. D. Watson, Esq.	10	3 6	...	26·24	...
Braystones	W. H. Watson, Esq.	10	3 6	36	20·22	...
Sprinkling Tarn M	Mr. E. Wilson	4	0 6	1985	71·41	...
Wastdale Head M	,, ,,	4	0 6	204 T	61·40	...

DIVISION X.—NORTHERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above SeaLevel	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft in.	feet.	inches.	
CUMBERLAND—(*con.*)						
Styehead Tarn ....M	Mr. E. Wilson	4	0 6	1472 T	87·70	...
†The Stye ....M	,, ,, ...	4	0 6	1077 T	130·90	...
† ,, ,, *New S.E. gauge* ..M	,, ,, ...	4	1 0	1078 T	113·80	...
Gable Hawes ....M	,, ,, ...	8	...	1077 T	52·30	...
†Seathwaite ....M	G.J.Symons,Esq.F.R.S.	4	0 6	422 T	97·27	...
D† ,, ...	,, ,, ...	5	1 0	423 T	101·57	199
,, ...	The Roy.Meteor.Society	5	0 10	422 T	100·38	199
*† ,, ...M	John Marshall, Esq. ...	5	1 0	420 T	97·39	...
Ullscarf ....M	G. H. Hill, Esq., C.E..	7	1 0	2100 T	76·60	...
D Whitehaven (The Flosh, Cleator)	D.Ainsworth,Esq. M.P.	5	1 11	208 T	33·04	135
†Wythburn Vicarage	Rev. Basil R. Lawson..	5	1 0	574 T	69·64	...
†Helvellyn (Birkside) ....M	G. H. Hill, Esq., C.E..	7	1 0	1900 T	55·80	...
†Wythburn ....M	,, ,, ,, ...	7	1 0	580 T	64·50	...
†Rosthwaite (Castle Lodge) ...M	G.J.Symons,Esq.,FRS.	8	1 0	305 T	74·30	...
D Borrowdale Vicarage....	Rev. J. Taylor	5	1 0	330 T	75·96	201
D†Buttermere (Hassness)	Mr. S. Stewart	5	1 0	355	81·22	181
†Watendlath ....M	G.J.Symons,Esq.,FRS.	8	1 0	867 T	64·25	...
† ,, ...	,, ,, ...	5	1 0	867 T	64·30	...
Borrowdale (Grange)	Mr. Threlkeld	5	0 9	271 T	68·40	164
Armboth....	G. H. Hill, Esq., C.E..	7	1 0	550 T	59·70	...
,, Fells (The Pewitts) ...	,, ,, ,, ...	7	1 0	1650 T	61·30	...
Helvellyn (Whiteside)	,, ,, ,, ...	7	1 0	2100 T	51·50	...
†Whitehaven (Irish Street)	Dr. I'Anson	5	1 1	21 ⊼	30·58	113
Keswick (Newlands)	Rev. R. Armstrong ...	5	1 0	...	64·62	...
D Arlecdon (Kirklandhow)	J. B. Wilson, Esq., C.E.	5	1 0	500 T	40·91	...
D Keswick (Barrow House)	Miss Langton....	8	0 6	282	53·86	172
Loweswater (Waterend)	Mrs. Jackson	5	1 0	432 T	43·19	174
Ullswater (Hallsteads)	A. Marshall, Esq.	10	4 0	490 T	39·40	...
†Keswick (Deer Close)	John Marshall, Esq. ...	7	1 9	300 T	43·88	171
† ,, (Derwent Island) ...*old*	,, ,, ,,	5	0 7	280 T	37·82	200
,, (,, ,,) ...*new*	,, ,, ,,	5	0 6	290	40·90	200
D† ,, (Post Office)	J. F. Crosthwaite, Esq.	8	6 4	270 T	43·83	184
† ,, (,, ,,)	,, ,, ,,	5	1 0	265	42·05	182
D† ,, (Shu-le-crow)	Miss Mitchell	8	2 6	296 T	42·34	172
Whitehaven (Gilgarron Hall) ...	Mr. D. Galloway	5	4 9	470 T	34·69	150
D Cockermouth (Whinfell Hall) ...	W. Robinson, Esq. ...	5	2 0	265 ⊼	40·99	194
D ,, (Brandlingill)....	Col. F. R. Sewell	5	1 0	320 ⊼	41·02	174
†Threlkeld Rectory	Rev. J. Brunskill	5	4 0	488 T	34·60	152
,, (Settra)	,, ,, ,, ...	5	1 0	840	45·72	...
,, (Blencathra)	,, ,, ,, ...	5	1 0	1400	46·30	...
D†Bassenthwaite (Mirehouse)	Lady Jane Spedding ...	5	0 6	300 T	36·27	165
Brigham (Broughton Cross)....	L. Wilson, Esq.	5	1 6	147 T	31·42	...
D†Cockermouth (Derwent House)..	Mrs. Dodgson....	5	...	...	33·42	144
D† ,, (Higham)	Rev. Canon Hoskins ...	5	1 0	478 ⊼	33·03	167
D ,, (BroughtonGrange)	G. S. Wilson, Esq. ...	5	1 3	209 ⊼	31·64	179
Penrith (Culgaith Vicarage) ...	Rev. G. W. Atkinson..	5	0 5	500 T	23·18	...
D ,, (Nandana)	G. Varty Smith, Esq...	5	5 0	625 T	22·65	155
† ,, (Fell Lane, Fir Bank) ..	T. Lester, Esq.	5	1 0	575 T	24·15	152

DIVISION X.—NORTHERN COUNTIES.—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
CUMBERLAND—(*con.*)						
Penrith (Greystoke)	A. Tremayne Buller, Esq	5	...	...	31 58	...
D† ,, (Newton Reigny)	T. G. Benn, Esq.	8	1 0	580 ⅄	27·66	176
† ,, (,, ,,) M	,, ,, ,,	8	1 0	580 ⅄	27·81	...
D ,, (Edenhall Vicarage)	B. W. Lovejoy, Esq.	5	1 4	310 T	23·68	166
,, (Kirkland Vicarage)	Rev. A. Edwards	5	...	...	27·78	...
D† Blencowe School	T. Fawcett, Esq.	8	0 9	601 B	30·77	174
D Hesket Newmarket (Hutton Roof)	A. Amos, Esq.	5	1 0	1010	35·07	150
Maryport (Netherhall)	H. P. Senhouse, Esq.	8	0 6	27 ⅄	29·80	137
Kirkoswald (Melmerby)	Rev. A. C. Pittar	5	...	...	27·65	178
Mealsgate (Uldale Rectory)	Rev. J. Greenwood	5	...	...	35·01	131
Hesket Newmarket	Mr. J. Wilson	5	1 0	600 T	35·13	...
D Aspatria (Brookfield)	M. Lidbetter, Esq.	5	0 9	124 ⅄	28·02	182
Carlisle (Wreay Vicarage)	Rev. T. Lees	5	2 0	310 T	24·64	184
D† ,, (Cemetery)	I. Cartmell, Esq.	8	4 0	114 ⅄	27·38	146
D ,, (Rose Hill)	C. Lonsdale, Esq.	8	1 0	102 ⅄	25·90	151
,, (Rickerby House)	M. MacInnes, Esq., M.P.	8	1 0	50	23·16	...
,, (Castletown)	Mr. A. Smith	...	...	...	24·17	...
D† ,, (Scaleby Hall)	R. A. Allison, Esq., M.P.	5	1 0	112 ⅄	27·39	173
D Brampton (Denton House)	Mr. J. Charlton	5	1 2	542 T	30·31	175
WESTMORELAND.						
D Arnside	J. P. Drewett, Esq.	5	0 6	25	30·43	146
Kirkby Lonsdale	Mr. W. Harrison	5	1 2	209	32·00	...
D Kendal (Kent Terrace)	R. J. Nelson, Esq.	5	1 6	146 T	32·37	161
,, (Underfell) No. 1	F. Wilson, Esq.	8	3 0	300 B	30·72	140
,, (,,) No. 2	,, ,,	8	...	300 B	33·53	140
,, (,,) M No. 3	,, ,,	8	1 0	300 B	32·15	...
D ,, (Hawesmead)	G. F. Braithwaite, Esq.	8	0 6	175 ⅄	34·46	184
,, (Ellergreen)	Mr. M. Jenner	5	1 3	290 T	36·83	192
D Bowness (Fallbarrow)	Rev. A. Rawson	8	1 0	135 T	40·49	155
Longsleddale	Rev. W. Burrows	5	1 0	512 T	50·38	132
D† Ambleside (Nook Cottage)	Mr. E. Hird	5	1 0	227 ⅄	49·15	186
,, (Strawberry Bank)	Rev. T. Mackereth	5	5 6	398 ⅄	40·69	185
† ,, (Lesketh Howe)	F. M. T. Jones, Esq.	5	2 6	175 T	52·42	170
D† Grasmere (High Close)	E. B. W. Balme, Esq.	8	0 9	553 T	51·46	175
D Ravenstonedale (Brownber)	J. Fothergill, Esq.	5	3 0	826 T	29·84	147
Orton Vicarage	Rev. E. Holme	5	3 6	770 T	38·97	...
Ambleside (Kirkstone Pass)	G. J. Symons, Esq. F.R.S	5	1 0	1500	68·05	167
D† Kirkby Stephen	T. Mason, Esq.	5	1 0	574 T	28·20	134
† Shap (Sleddale) M	Mr. W. Hoggarth	5	1 0	1560 T	55·55	...
† ,, (Swindale) M	,, ,,	5	1 0	1610 T	67·80	...
† Haweswater (Mardale Green) M	G. J. Symons, Esq., FRS	5	1 0	780 T	76·55	...
† ,, (,, ,,) M	,, ,, ,,	8	1 0	780 T	68·95	...
,, (Naddle Forest) M	,, ,, ,,	8	1 0	794 T	45·50	...
D† Shap (Copy Hill)	Mr. W. Hoggarth	5	1 0	852 ⅄	39·63	177
,, (,, ,,) M	,, ,,	5	1 0	852 ⅄	39·50	...
D† Patterdale Hall	Mr. A. Milne	7	1 3	490 T	58·87	159
† ,, (Greenside Mine)	Mr. T. Taylor	7	1 6	1000 T	68·05	...

DIVISION X.—NORTHERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
WESTMORELAND—(*con.*)						
D†Crosby Ravensworth (Reagill)...	Mr. Wilkinson	8	0 6	890 T	29·38	128
D†Appleby	Dr. Armstrong	5	1 0	442 ⅄	24·68	165
Ullswater (Swarth Fell) .....M	G.J.Symons,Esq. F.R.S.	8	1 6	1000 T	41·38	...
,, (Sharrow Bay) .....M	A. Parkin, Esq.	5	0 7	500 T	35·24	...
,, (,, ,,) .....M	,, ,, ...	8	1 6	500 T	32·25	...
D Lowther Castle [Penrith]	Mr. F. Clarke	8	4 0	750 T	28·78	119
Barton Hall [Penrith]	J. H. Cumpston, Esq...	5	...	...	32·24	119
D Milburn .....M	Miss Robinson.....	5	1 0	644 T	24·86	144

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.

MONMOUTH.						
D Marshfield (Llwynarthan)	F. G. Evans, Esq.....	5	1 0	72 B	26·42	148
D Newport (Gold Tops).....	T. Dyne Steel, Esq,C.E.	10	1 6	100 ⅄	28·77	167
D Chepstow (Shirenewton Hall) ...	E. J.Lowe,Esq., F.R.S.	8	1 0	530 T	30·47	157
D Llanfrechfa Grange	F. J. Mitchell, Esq. ...	5	4 0	326 ⅄	31·10	135
Tredunnock	Rev. C. T. Salusbury...	5	2 3	170 ⅄	26·09	144
D Chepstow (The Mount)	H. A. Smith, Esq.....	5	1 6	150	26·06	105
D ,, (Piercefield Park).....	H. Clay, Esq.....	5	1 6	300 ?	26·48	136
D Usk (Porthycarne).....	D. Lawrence, Esq.....	8	4 0	58	27·18	150
Blaenavon	C. White, Esq.	5	0 9	980	40·48	...
D Tredegar (Bedwellty House) ...	J. Colquhoun, Esq. ...	8	1 0	972 ⅄	43·26	146
D ,, (The Willows)	G. A. Brown, Esq.....	8	1 0	1024 T	42·01	161
D Ebbw Vale (The Firs)	R. S. Jordan, Esq.....	5	1 0	1060 ⅄	41·77	161
Abergavenny (Larchfield)	Dr. Glendinning	5	1 0	240 B	26·52	149
,, (Dyne House)	Dr. Steel.....	5	1 3	220	27·66	152
,, (The Chain)	R. Baker Gabb, Esq....	5	2 6	250	27·63	158
D Llantilio Court	Sir H. M. Jackson, Bt.	5	0 10	207 ⅄	25·26	108
D Monmouth (Pentwyn)	Rev. J. T. Harding ...	5	1 0	191 B	21·42	108
GLAMORGAN.						
D*Cowbridge (The Ham)	G. W. Nicholl, Esq. ...	8	1 6	96 T	24·69	113
Cardiff (Cogan Pill, Landough)..	J.A.B.Williams,EsqCE	5	1 0	122 ⅄	26·81	...
D ,, Castle.....	Mr. A. Pettigrew	5	1 0	38 ⅄	29·82	160
Cowbridge (Ash Hall)	D. Owen, Esq.	8	1 0	315 ⅄	31·15	157
D Cardiff (Ely)	J.A.B.Williams,EsqCE	8	1 0	53 ⅄	31·59	151
,, (Lisvane)	,, ,, ,,	5	1 0	136 ⅄	23·29	...
,, (New Filters, Heath)....	,, ,, ,,	5	...	132	27·97	...
D Oystermouth (Newton)	Rev. S. Jones	5	0 9	279 T	30·27	161
D Swansea (Sketty)	T. T. Wood, Esq.	5	1 0	280	33·59	156
D ,, (South Dock Lock).....	Swansea Harbour Trust	12	14 9	40	27·49	146
Neath	E.C. Pole, Esq.	5	1 0	204 ⅄	36·11	159
D Swansea (Morriston)	E. Rice Morgan, Esq...	5	1 0	89	35·16	136
D Neath (Fairy Land)	E. Ll. Green, Esq. ...	5	1 9	170 B	36·25	158
D† ,, (Glyncorrwg)	T. F. Brown, Esq.....	5	4 6	717	59·98	168
D Mountain Ash (Maesydderwen)..	M. Morgan, Esq.	5	1 0	483 ⅄	41·54	156
Treherbert	Sir W. T. Lewis, C.E...	5	1 0	670	64·25	145

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Sea Level in.	feet.	Depth of Rain. 1887 inches.	Days on which ·01 or more fell.
GLAMORGAN—(*con.*)							
Castell Llwchwr (Penllergare)...	J. T. D. Llewellyn, Esq.	5	4	0	240 T	33·54	143
Aberdare (The Mardy)	Sir W. T. Lewis, C.E...	5	2	2	431 ⅄	49·40	159
D† ,, (Abernant).....	Evan Jones, Esq.	5	4	6	425	41·71	147
D Felindre (Lliw Reservoir).....	R. H. Wyrill, Esq., C.E.	8	1	6	426 T	36·96	158
D Dowlais (Cwm Bargoed)	G. A. Lundie, Esq., C.E.	5	1	0	1237 ⅄	27·76	158
D Ystalyfera (Tan-yr-allt)	D. H. Lewis, Esq.....	8	1	6	300 L	47·38	141
CARMARTHEN.							
D Llanelly (Old Market Place).....	G. Watkeys, Esq., C.E.	5	9	0	35	30·25	160
D ,, (Cwmlliedi W.W.)	,, ,, ,, ...	5	3	0	240 ⅄	34·97	157
Tegfynydd [Narberth]	H. S. Morgan, Esq. ...	5	1	0	158 ⅄	35·76	110
D†Carmarthen (Joint Co. Asylum)..	Dr. Hearder	8	1	0	189 ⅄	33·82	154
D Llandilo (Dynevor Castle)	Rt. Hon. Lord Dynevor	8	1	0	202 T	36·62	166
Llandovery.....	J. Watkins, Esq.	5	1	0	217 T	35·97	178
PEMBROKE.							
Pembroke (Stackpole Court).....	Rt. Hon. Earl of Cawdor	9	1	8	50 ⅄	27·91	146
,, (St. Ann's Head).....	The Meteor. Council ...	8	0	8	150	23·41	...
D Haverfordwest (Picton Castle)...	Sir C. Philipps, Bart...	5	1	0	100	32·00	147
D* ,, (High Street) ...	E. P. Phillips, Esq. ...	5	1	0	95 T	35·23	160
D Clarbeston (Penty Park)	Capt. F. Lloyd Philipps	5	1	0	260 B	35·53	136
D St. David's.....	Dr. W. P. Propert.....	5	1	0	216	25·56	173
D Fishguard (Castle Hill).....	W. D. Wathen, Esq....	5	3	0	200 T	33·42	162
D Castle Malgwyn [Llechryd]... ..	Mr. F. Peppitt	5	1	0	...	29·33	152
CARDIGAN.							
D Llechryd (Fernhill)	J. D. Dundas, Esq. ...	5	1	0	...	27·25	161
D Troedyraur Rectory	Mrs. Lloyd.....	5	1	0	140?	29·46	168
D Aberaeron (Dolaeron)	T. H. Maddy, Esq. ...	5	1	11	50	26·57	143
Aberystwith	Dr. Rees Davies	8	1	0	50	21·59	151
D ,, (Goggerddan)	Sir Pryse Pryse, Bart..	5	1	0	80 B	34·49	154
D ,, (Cwmsymlog)	Capt. Garland	5	3	0	800	41·79	139
BRECKNOCK.							
D†Nanthir Reservoir [Aberdare] ..	T. L. Edwards, Esq....	5	1	0	860 ⅄	42·41	174
† ,, ,, [,,] M	,, ,, ,, ...	5	1	0	860 ⅄	42·67	...
†CardiffWW(CwmTaffFawrNo5)	JABWilliams, Esq.C.E.	5	1	0	1143 ⅄	54·29	...
† ,, ,, (,, ,, ,, No.1)	,, ,, ,, ...	5	1	0	2350 T	52·83	...
D† ,, ,, (,, ,, ,, No.6)	,, ,, ,, ...	5	1	0	1328 ⅄	55·26	147
Crickhowel (Gwernvale)	Mrs. Lloyd.....	5	1	0	373 ⅄	29·44	151
Brecknock (Cantreff Rect.)	Rev. J. J. Evans	5	1	0	550?	34·81	137
D ,, ...	J. Kirk, Esq.	5	2	0	437 ⅄	30·23	139
D Trecastle (Llywel Vic.).....	Rev. T. Jones	5	1	0	750 T	38·37	162
D Brecknock (Llandefaelog-fach)..	Rev. W. Williams.....	5	1	1	660	28·58	174
D Hay (Gwernyfed Park).....	T. Wood, Esq.	5	1	0	350 T	22·77	142
D Builth (Llanwrtyd Wells)	Miss Jones	5	1	0	800 L	43·50	144
,, (Vicarage)	Rev. A. T. Coore	8	1	0	520 T	25·91	...
D ,, (Abergwessin Vic.).....	Rev. J. Jones	5	1	0	914 T	48·87	190
D Newbridge (Llysdinam)	Mrs. Lister Venables...	5	1	0	640 T	27·48	163

DIVISION XI.—MONTMOUTH, WALES, AND THE ISLANDS—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Sea Level in.	feet.	Depth of Rain. 1887 inches.	Days on which ·01 or more fell.
RADNOR.							
Glasbury (Woodlands)	A. Battiscombe, Esq....	5	1	0	305 T	22·74	130
,, Llanstephan	J. Hotchkiss, Esq.....	5	1	0	394	26·18	129
,, Llandrindod Wells (Brynarlais).	Dr. J. B. Davies	5	1	0	700 B	27·27	163
,, New Radnor (Downton)	Col. Pearson	5	0	8	712	26·91	165
,, ,, ,,	R. Harding, Esq., M.D.	5	0	8	720	29·77	169
,, ,, (Ednol)	Col. Pearson	5	0	8	930	28·48	163
Llandegley (Gwern-i-Arglwydd)	,, ,, ...	5	2	0	1000	26·62	151
,, Pen-y-bont	,, ,, ...	5	3	6	750	25·50	153
,, Rhayader (Nantgwillt)	R. L. Lloyd, Esq.	5	1	0	767 B	44·16	154
MONTGOMERY.							
Llangurig (Esgair Clochfan) ...	G. J. Symons, Esq., FRS	5	1	2	1330	46·70	...
† ,, (Ystrad-olwyn-fawr) ...M	,, ,, ,, ,,	8	1	0	950	33·70	...
,, Llanidloes (Broomcliffe)	E. Powell, Esq.	5	1	0	650 T	35·83	178
,, Newtown (Dolfor)	W. B. Pugh, Esq.....	5	0	3	1027 T	30·19	167
,, Churchstoke (Mellington Hall)..	P. Wright, Esq.	5	1	6	540 ⅄	24·07	152
,, (,, ,,)M	,, ,, ,, ...	5	1	6	540 ⅄	24·07	...
Dylife Lead Mine	G. J. Symons, Esq. F.R.S.	5	1	0	1400 T	41·30	...
,, Carno (Llanwnog)	Rev. D. Parry	5	1	4	...	26·55	137
,,† ,, (Tybrith)..	Miss Marsh.....	5	1	0	595 T	36·37	156
,,†Garthbibio (Rhos-y-perfedd) ...	G. J. Symons, Esq., FRS.	8	1	2	792	39·63	132
,, (Bwlch Tomlyd)	,, ,, ,, ...	5	1	2	1370	53·40	...
,, Welshpool (Pool Quay Vic.).....	Rev. R. J. Roberts ...	5	1	0	230 T	21·39	165
Pont Dolanog	J. W. Willis Bund, Esq.	5	...		...	26·39	158
Llansaintffraid	,, ,, ,, ...	5	...		...	23·17	129
†Llanwddyn (Daffrn-newydd) ...	G. J. Symons, Esq., FRS.	8	1	0	750 B	25·25	...
FLINT							
,, Hawarden	Dr. Burlingham	5	1	0	245 T	25·61	158
,,†Flint (Soughton Hall, Northop).	J. Scott Bankes, Esq...	5	1	2	418	26·55	170
St. Asaph (Nantllys)	P. P. Pennant, Esq. ...	5	1	0	173 ⅄	24·91	...
,,†Halkyn	Capt. Williams	5	1	3	895 ⅄	25·51	158
Holywell (Bagillt)	A. O. Walker, Esq. ...	5	1	6	20 T	21·90	156
,, Rhyl (Sedgley House)	W. T. Girdlestone, Esq.	5	2	6	21 ⅄	19·66	132
Prestatyn (Nant)	T. G. Dixon, Esq.	5	1	2	30 ?	20·59	160
DENBIGH.							
,, Ruabon (Penycae Reservoir) ...	G. E. Woodford, Esq...	5	1	0	...	25·90	133
,, ,, (Wynnstay)	Mr. Middleton	12	3	0	484 ⅄	23·75	156
Llangollen (Plas Berwyn)	Major Tottenham	5	0	5	440	36·89	156
Cerrig-y-druidion	C. S. Mainwaring, Esq.	5	1	0	890 T	37·01	163
Wrexham (Pack Saddle Res.) ...	F. Storr, Esq.	5	0	9	370 ⅄	24·98	141
,, (Cae Llwyd Res.) ...	,, ,, ,, ...	8	0	9	918 ⅄	33·56	137
,, (,, ,, ,,) ...	,, ,, ,, ...	5	0	9	918 ⅄	33·73	137
,, (Brymbo)	J. H. Darby, Esq.....	5	15	3	674	19·90	...
,, Rosset (Trevalyn Hall)	Capt. Griffith Boscawen.	5	1	0	58 ⅄	22·11	160
,, Llangerniew (Hafodunos).....	H. R. Sandbach, Esq...	5	1	0	512 T	39·86	166
†Nannerch (Penbedw Hall)	Mr. W. McMurray ...	8	0	6	650 T	30·03	142
,, Denbigh (Garn)	W. D. W. Griffith, Esq.	5	0	10	457 T	25·83	154
Eglwys-Bach (Bodnant)	C. Ashby, Esq.	8	2	6	102 ⅄	27·74	139
Colwyn Bay (Nant-y-Glyn) ..	A. O. Walker, Esq. ...	5	2	3	180 ⅄	27·01	162
,, (Bryn Euryn)	Mr. T. Hutchings	5	1	0	125 T	24 70	146

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
MERIONETH.						
† Dolgelly (Brithdir)	J. Hill, Esq.	5	1 6	465 T	44·99	...
Trawsfynydd	Major Mathew	5	0 5	700	48·30	139
Bala (Eryl Arran)	E. Jones	12	1 0	590 T	38·94	144
D Llanderfel (Palé Gardens)	Mr. T. Ruddy	8	1 0	606 T	37·37	178
D Corwen (Rhug Gardens)	Mr. J. Bennett	5	1 0	500	29·40	131
CARNARVON.						
Pwllheli (Bodfaen)	Major Mathew	5	5 0	80	32·29	148
*Llanystumdwy (Talarvor)	,, ,,	5	3 0	50	26·66	143
D†*Port Madoc	,, ,,	5	3 0	10	41·47	149
Llandwrog (Glynllivan Park)	Hon. F. G. Wynn	5	1 0	80?	35·13	...
,, (,, Garden)	,, ,,	5	1 0	160	39·09	182
,, (,, Fort)	,, ,,	8	1 0	170	35·41	168
Pen-y-gwryd	Mr. H. Owen	8	1 0	880	61·75	141
Carnarvon (Belan Fort)	Hon. F. G. Wynn	5	1 0	12	24·54	...
,, (Cocksidia)	Major Mathew	5	1 0	120	30·40	154
Dinorwic Quarry	,, ,,	5	4 0	850	50·35	159
D Llanbedr-y-Cennin (Llyndulyn)	T. T. Marks, Esq., C.E.	8	1 6	1622 T	80·45	133
Llanfairfechan	R. Luck, Esq.	5	0 8	150 B	28·72	126
D†Llandudno (Warwick House)	Dr. Nicol	8	0 8	99 T	21·61	153
ANGLESEA.						
D Llangadwaladr (Bodorgan)	Mr. J. Gray	8	3 6	...	25·86	128
Holyhead	The Meteor. Council	...	...	...	26·40	...
LlanerchymeddLlwydiarthEsgob	T. Prichard, Esq.	5	1 0	112 L	27·98	168
D Bodewryd (Rhosybol)	Rev. D. Morgan	5	1 6	170	28·64	122
ISLE OF MAN.						
Castletown (Langness)	Bd. of Northern Lights	...	...	...	14·70	...
Derbyhaven	A. W. Moore, Esq.	5	1 0	20	19·29	100
St. Mark's	,, ,, ,,	5	0 9	400	25·36	141
D Douglas (Derby Square)	P. Killey, Esq.	5	1 1	78	24·81	149
D ,, (Victoria Road)	H. Story, Esq.	8	1 0	120 L	26·98	153
,, (Prospect Hill)	T. Keig, Esq.	5	16 0	58	25·54	154
,, (St. Mary's)	A. W. Moore, Esq.	...	...	...	25·54	154
,, (Cronkbourne)	,, ,,	8	0 10	138 T	27·63	150
,, (Clypse, Onchan)	,, ,,	8	1 0	439 T	27·99	167
Peel	,, ,,	5	1 0	210 T	23·47	132
The Dhoon	,, ,,	5	1 0	450 T	34·40	136
Ramsey	,, ,,	5	0 9	30	30·44	144
Andreas	Rev. F. Lamothe	5	0 6	72 T	23·49	128
Point of Ayre	Bd. of Northern Lights	...	...	...	17·18	113
ISLES OF SCILLY.						
St. Mary's	The Meteor. Council	8	1 6	77 L	25·28	...
D†Tresco Abbey	T. A. D. Smith, Esq.	12	3 0	30	25·30	144
JERSEY.						
St. Helier (Hastings Terrace)	W. L. Lancaster, Esq.	5	1 0	21	25·71	147
St. Aubins (Noirmont)	The Meteor. Council	8	1 0	270	26·54	...
GUERNSEY.						
D Les Ruettes Brayes	A. Collenette, Esq.	5	1 0	255 L	28·72	193
,, ,, (Le Hechat)	,, ,, ,,	5	1 0	255 L	28·95	...
D Villa Carey	Dr. Carey	8	1 7	180	25·88	157
,, M	,, ,,	5	1 7	180	25·78	...

SCOTLAND.

DIVISION XII.—SOUTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Sea Level feet.	Depth of Rain. 1887 inches.	Days on which ·01 or more fell.
WIGTON.						
Mull of Galloway	Bd. of Northern Lights	...	...	...	16·28	...
D Garliestown (Galloway Ho.)	Mr. J. Day	5	4 6	20 ?	27·29	142
Stoneykirk (Ardwell House)	M.J.Stewart,Esq.,M.P.	8	1 0	125	24·31	...
Corsewall	Bd. of Northern Lights	...	3 4	22 ?	25·12	...
KIRKCUDBRIGHT.						
Little Ross	Bd. of Northern Lights	...	3 3	130 ?	18·82	...
St. Mary's Isle	Mr. Browning	5	0 4	...	35·04	...
Auchencairn (Torr House)	W. Ovens, Esq.	5	0 8	30	35·64	...
Dalbeattie (Colvend Manse)	Rev. J. Fraser	5	1 6	120 T	27·84	...
Twynholm (Cally)	A. Buchan, Esq.	5	1 0	140	37·22	134
*Dalbeattie (Station Road)	Mr. W. McBride	10	1 0	50 ?	39·66	...
D Cargen [Dumfries]	P. Dudgeon, Esq.	5	0 4	80 ⅄	32·06	143
D New Galloway (Glenlee)	Mr. W. Melville	5	1 3	208	47·70	186
Irongray (Drum Park)	D. J. Kay, Esq.	3	0 8	230	42·25	...
DUMFRIES.						
D Annan (Kinmount)	Mr. R. Elliot	8	3 0	140 ⅄	29·16	137
D Dumfries (Crichton Inst.)	Mr. Smith	5	4 0	159 T	25·73	154
Lockerbie (Castlemilk)	Mr. J. Dickson	...	...	...	30·96	160
Langholm (Westwater)	Mr. W. Elliot	5	2 0	550 T	46·02	...
,,	Mr. D. Elder	5	1 0	270 ⅄	41·02	171
,, (Ewes School)	Mr. J. C. Lyall	3	1 0	445 T	44·75	...
,, (,, Burnfoot)	,, ,,	3	1 0	541 ⅄	47·63	...
Durrisdeer (Drumlanrig Castle)	Mr. D. Thomson	5	0 6	191 T	31·40	...
Moffat (Ericstane)	J. J. Welsh, Esq.	...	...	550	37·18	...
ROXBURGH.						
New Castleton (The Flatt)	J. Elliot, Esq.	3	0 9	350 T	32·50	...
D Hawick (Wolfelee)	Mr. Cockburn	5	0 6	587	29·91	145
,, (Branxholme)	W. E. Lockhart, Esq.	3	0 2	451 ⅄	25·69	...
,, (Kirkton)	Mr. J. Welsh	3	0 6	759 ⅄	26·70	...
*Jedburgh (Sunnyside)	G. Hilson, Esq.	5	6 0	351 ⅄	22·27	143
D St. Boswell's (Elliston)	The Hon. G. Dalrymple	5	1 0	252	22·06	165
Kelso (Springwood Park)	Mr. W. Chaplin	10	1 0	130 L	26·16	142
D Melrose (Asylum)	Mr. Pattman	5	0 6	480 T	21·49	196
D ,, (Abbey Gate)	Mr. A. B. Dodds	5	0 6	280 T	25·76	196
Wooplaw [Galashiels]	J. Murray, Esq.	5	1 0	880 ⅄	23·59	...

DIVISION XIII.—SOUTH EASTERN COUNTIES.

	STATIONS.	AUTHORITIES.	Rain Gange. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Raih. 1887	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	SELKIRK.						
	Borthwickbrae [Hawick]	W. E. Lockhart, Esq...	8	0 2	800	30·60	...
	Selkirk (Bowhill)	A. Buchan, Esq.	9	11 0	597	23·88	124
D	,, (The Hangingshaw)	Miss Johnstone	5	0 3	670 T	28·90	179
D	Galashiels (Abbotsford Rd.)	Dr. Somerville	5	0 6	416 T	26·85	181
	PEEBLES.						
	Innerleithen (The Glen)	A. Buchan, Esq.	...	...	...	32·80	...
	Manor (Glenrath)	Mr. S. Linton	5	1 2	764 ⅄	36·53	112
	Peebles (Stobo Castle)	A. Buchan, Esq.	...	...	600	23·50	...
	Innerleithen (Runic Cross)	Mr. R. Mathison	5	1 0	474 ⅄	28·20	...
	,, (Leithen Lodge)	Mr. D. Clark	11	0 0	700 T	35·30	...
	Eddlestone (Portmore Res.)	W. H. Cameron, Esq...	11	0 6	1000	30·59	160
D	N. Esk Reservoir [Penicuick]	Mr. J. Garnock	11	0 6	1150 ⅄	34·35	150
	BERWICK.						
D	Coldstream (The Hirsel)	Mr. Cairns	3	0 7	75 ⅄	21·25	141
D	Marchmont House	Mr. P. Loney	5	1 0	500 T	27·00	191
	Berwick (Paxton House)	A. Buchan, Esq.	5	0 6	90	22·39	...
	Dunse (Clouds)	C. Watson, Esq.	8	0 6	500 T	24·68	...
	,, Castle	A. Buchan, Esq.	...	...	...	25·50	...
	St. Abb's Head	Bd. of Northern Lights	...	0 4	211	17·81	119
	HADDINGTON.						
D	Haddington (Asylum)	J. Mowat, Esq.	5	1 0	238 T	20·92	185
D	East Linton	Mr. J. Storie	3	0 3	90 T	21·60	131
	Prestonkirk (Smeaton)	A. Buchan, Esq.	...	...	100	19·79	132
	North Berwick (Fidra)	Bd. of Northern Lights	...	...	...	16·77	...
	EDINBURGH.						
	Moorfoot Hills (Bowbate)	J. Oliver, Esq.	...	...	...	43·15	...
	,, ,, (Gladhouse Res.)	,, ,, ,,	11	0 6	900	30·86	180
	,, ,, (Rosebery)	,, ,, ,,	...	...	...	24·86	128
	Pentland Hills (Crosswood)	,, ,, ,,	11	0 6	950	33·20	...
D	Gorebridge (Middleton)	Miss Anstruther	5	...	750	29·83	149
	Penicuick (Edgelaw Res.)	J. Oliver, Esq.	11	0 6	654	24·68	128
	Pentland Hills (Harper Rig)	,, ,, ,,	11	0 6	900	29·90	...
	,, ,, (Hare Hill)	,, ,, ,,	11	0 6	1470	52·30	...
	,, ,, (Loganlea)	,, ,, ,,	11	0 6	850	39·10	...
	West Calder (Addiewell)	J. Fyfe, Esq.	5	0 6	695	31·70	...
	Pentland Hills (Swanston)	J. Oliver, Esq.	11	0 6	550	26·20	...
	,, ,, (Glencorse Res.)	,, ,, ,,	11	0 6	787	34·81	122
	,, ,, (Harlaw)	,, ,, ,,	11	0 6	800	29·50	...
	,, ,, (Clubbiedean Res)	,, ,, ,,	11	0 6	750	28·00	103
	,, ,, (Harbour Hill)	,, ,, ,,	11	0 6	1112	31·70	..
	Colinton (Fernielaw)	J. Leslie, Esq., C.E. ...	11	0 6	500	26·00	...
D	Gilmerton Station	Mr. J. J. Bell	5	0 6	240	22·57	120
	Liberton (Alnwick Hill Res.)	J. Oliver, Esq.	...	...	400	26·51	101
	Edinburgh (Charlotte Square)	J. Leslie, Esq., C.E. ...	11	0 6	230	19·50	...

DIVISION XIII.—SOUTH EASTERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1887	Days on which 0·01 or more fell.
				ft. in.	feet.	inches.	
	EDINBURGH—(*con.*)						
	Edinburgh (Charlotte Square)	J. Leslie, Esq., C.E.	12	63 0	300	13·70	...
	,, (Cumin Place)	A. Buchan, Esq.	5	1 0	162	22·86	...
	,, (Streatham Ho.)	,, ,,	...	...	...	21·13	...
	,, (Napier Road)	,, ,,	...	...	...	20·49	...
	,, (Blacket Place)	R. C. Mossman, Esq.	5	1 0	249 T	22 13	...
	Leith	The Meteor. Council	8	1 8	22	17·41	176
	,, (Navigation School)	A. Buchan, Esq.	5	0 5	70	19·75	161
	LINLITHGOW.						
	Uphall	J. Fyfe, Esq.	...	...	...	25·30	...

DIVISION XIV.—SOUTH WESTERN COUNTIES.

	LANARK.							
	Biggar (Wiston)	Mr. W. Core	3	0 6	860 T	33·20	...
D	,, (Cambus Wallace)	Captain Paul	6	0 6	748 ⅄	25·28	165
	Dalzell House	J G C Hamilton, Esq, M P	6	5 3	89 T	17·91	101
D	Hamilton Water Works	Mr. R. Watson	7	1 0	425 T	25·20	...
	,, (Bothwell Castle)	Mr. W. F. Archibald	10	18 0	146 T	21·83	133
†	Cambuslang (Bushy Hill)	Dr. Muirhead	5	1 0	146 ⅄	26·56	183
D	Airdrie (Hillend Reservoir)	Mr. W. Ritchie	6	4 6	620 ⅄	31·57	...
	Glasgow Observatory	Prof. Grant, F.R.S.	11	1 9	180	30·98	163
	AYR.							
D	Ballantrae (Glendrishaig)	P. Murdoch, Esq.	5	1 0	320	32·63	147
	Barrhill (Dochroyle) M	Mr. J. Scott	6	0 6	548 T	36·11	...
D	Colmonell	R. Aitken, Esq.	6	0 6	100 T	38·70	148
	Girvan (Pinmore)	A. Buchan, Esq.	5	1 0	187 ⅄	41·43	181
	Loch Finlas	J. Wilson, Esq., C.E.	5	1 0	849 ⅄	41·36	170
	Girvan (Turnberry)	Bd. of Northern Lights	...	...	...	27·10	134
	Dalmellington (Benquhat)	A. Buchan, Esq.	...	...	...	42·14	...
	Ayr (Auchinlee)	J. Drennan, Esq.	6	3 0	36 T	25·87	...
D	Old Cumnock	Mr. J. Ballantine	5	1 0	380 ⅄	37·57	183
	Mauchline	A. Edgar, Esq.	...	...	450	29·47	...
	Kilmarnock (North Craig)	J. M. Gale, Esq., C.E.	12	0 6	310	27·47	...
	Ardrossan	The Meteor. Council	8	1 0	10	26·81	...
D	,, (Kirkhall)	H. F. Weir, Esq.	8	2 9	106 ⅄	26·72	144
	Dalry (Blair Park)	J. Wilson, Esq., C.E.	4	0 2	710	52·90	...
D	,, (Carsehead)	Mrs. Aitken	5	1 1	160 T	33·61	186
	Paisley W.W. (Camphill)	R. Sharp, Esq.	12	0 2	611	50·10	...
	Wemyss Bay (Ashcraig)	Miss Stewart	10	2 10	15	37·14	146
	Shaws W. Works (Kelly Dam)	J. Wilson, Esq., C.E.	6	1 0	640 ?	48·90	...
	RENFREW.							
	Lochwinnoch (Castle Semple)	Mr. W. Thorburn	6	30 0	240	33·86	167
Gorbals's Dist.	Ryat Lynn	J. M. Gale, Esq., C.E.	8	0 5	310	38·20	...
Gorbals's Dist.	Waulk Glen	,, ,, ,,	12	0 5	280	36·90	...
Gorbals's Dist.	Middleton	,, ,, ,,	12	0 5	550	44·75	...
Gorbals's Dist.	Nither Cairn	,, ,, ,,	...	...	700	44·60	...

DIVISION XIV.—SOUTH WESTERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1887	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	RENFREW—(*con.*)						
Paisley W. Works	Stanely	R. Sharp, Esq.	12	1 0	190	30·24	...
	Back Thornleymuir	,, ,,	12	1 0	646	40·13	...
	Muirhead	,, ,,	12	1 0	482 ⊼	40·98	...
	Springside	,, ,,	12	1 0	532 ⊼	43·54	...
D	Glasgow (Queen's Park)	Mr. D. McLellan	8	0 5	144 ⊼	25·78	162
	Paisley (Ferguslie House)	Mr. Maclean	3	1 0	86 ⊼	29·64	...
	,, (The Coats Observatory)	,, ,,	10	...	...	28 66	...
Shaws Water Works.	Green Water	J. Wilson, Esq., C.E.	6	1 0	788 ⊼	53·50	...
	Garvocks	,, ,, ,,	6	1 0	631 ⊼	52·60	...
	Glenbrae	,, ,, ,,	6	0 9	574 ⊼	54·30	...
	Mansfield	,, ,, ,,	5	1 0	573 ⊼	54·62	220
	Compensation Reservoir	,, ,, ,,	6	1 0	600	53·10	...
	Loch Thom	,, ,, ,,	5	1 0	643 ⊼	56·90	244
	Shielhill	,, ,, ,,	6	0 9	962 ⊼	50·50	...
	Darndaff Moor	,, ,, ,,	6	1 0	840	51·70	...
	Spango Burn	,, ,, ,,	6	0 9	757 ⊼	51·10	...
	Hole Glen	,, ,, ,,	5	1 0	603	46·12	212
	New Yetts Dam	,, ,, ,,	5	1 0	800	48·47	211
	Prospect Hill	,, ,, ,,	5	1 0	200	47·72	192
	Port Glasgow (Dougliehill Res.)	,, ,, ,,	5	1 3	549 ⊼	40·80	157
	,, ,, (Auchendores Res)	,, ,, ,,	5	1 3	321 ⊼	37·03	157

DIVISION XV.—WEST MIDLAND COUNTIES.

	DUMBARTON.						
	New Kilpatrick (Chesters)	J. Kennedy, Esq.	5	1 0	240 ⊺	34·30	...
D	Dumbarton (Leven Shipyard)	Messrs. Denny, Bros.	5	1 0	21 ⊺	34·23	199
	Helensburgh (Lyleston)	Forrest Frew, Esq.	6	0 4	120	34·70	...
	Arrochar	Rev. J. Dewar	5	0 9	10	50·45	...
	STIRLING.						
	Strathblane (Mugdock Reservoir)	J. M. Gale, Esq., C.E.	8	0 6	320	36·60	...
	Falkirk (Kerse)	A. Brown, Esq.	8	1 0	...	23·80	...
D	Killearn (Old Ballikinrain)	Mr. J. Smith	5	0 6	265	42·41	171
	Stirling (Polmaise Gardens)	Mr. W. W. Ritchie	6	1 0	12	23·80	...
	Kippen	Rev. P. J. Muirhead	5	1 6	255 ⊺	34·48	121
	Ben Lomond	J. M. Gale, Esq, C.E.	...	...	1800	61·00	...
	BUTE.						
	Arran (Pladda)	Bd. of Northern Lights	...	3 3	55 ?	29·05	...
	Holy Island (Lamlash)	,, ,, ,,	...	...	...	39·20	...
	Rothesay (Mount Stuart)	J. Kay, Esq.	3	2 6	100 ⊼	36·30	...
D	,, (Barone Cottage)	,, ,,	5	1 0	116 ⊼	35·31	186
	ARGYLL—(MAINLAND.)						
D	Holy Loch (Rosmor)	W. R. W. Smith, Esq.	5	1 1	30	55·12	...
	Ardrishaig	A. Buchan, Esq.	8	0 6	14	58·48	...

DIVISION XV.—WEST MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	ARGYLL—(MAINLAND)—(*con.*)						
	Loch Eck (Benmore)..... M	J. Duncan, Esq.	6	1 0	35	83·21	...
D	Lochgilphead (Kilmory) *Snowdon*	Sir J. Campbell Orde, Bt.	5	...	...	48·59	202
D	,, (Poltalloch)	Mr. J. Russell	3	4 6	121	36·27	180
	,, (,,)	,, ,, ...	5	0 4	118	38·40	...
D	Oban (Craigvarren)	G. W. Brenan, Esq., C.E.	5	1 0	143	46·79	201
D	,, (The Corran)	Dr. Bailey	5	1 0	20	46·66	197
D	Lock Etive (Ardchattan Priory).	J. Carmichael, Esq.....	...	1 0	...	49·50	192
	Appin (Aird's)	R. Macfie, Esq.	5	0 11	41 ⅄	46·95	...
	Ballachulish	D. Campbell, Esq., M.D.	8	0 10	20	74·40	208
D	Strontian (Laudale)	A. Fletcher, Esq.	8	1 0	15 ⅄	66·96	234
	,, (,,)	,, ,, ,, ...	5	1 0	15 ⅄	70·13	234
D	Loch Sunart (Glenborrodale) ...	J. J. Dalgleish, Esq....	5	0 2	60 L	68·26	215
	Ardnamurchan	Bd. of Northern Lights	...	3 6	28 ?	35·08	159
D	,, (Achateny).....	Mr. R. Coltart	5	0 2	61 ⅄	61·85	216
	Loch Eil (Corran)	Bd. of Northern Lights	...	0 4	14 ?	70·18	167
	,, ,, (Conaglen)	Dow. Countess of Morton	5	0 10	...	75·84	197
	ARGYLL—(INSULAR.)						
	Cantire, Mull of.....	Bd. of Northern Lights	...	...	279 ?	27·32	...
	,, (Campbeltown, Devaar)	,, ,,	...	3 4	75 ?	25·41	...
	,, (Skipness Castle)	Mr. P. Maclean	6	1 6	27 L	36·50	...
D	,, (Stonefield, Tarbert) ...	Colin G. Campbell, Esq	3	1 3	90	56·54	208
D	Islay (Ardbeg)	C. Hay, Esq.	5	4 0	10	34·12	200
	,, (Rhinns)	Bd. of Northern Lights	...	3 0	74 ?	30·90	159
	,, (Lochindaul).....	,, ,,	...	...	...	37·60	146
	,, (McArthurshead).....	,, ,,	...	...	...	42·35	123
D	,, (Eallabus).....	J. S. R. Ballingall, Esq.	5	1 0	68 T	38·78	156
D*	,, (Gruinart School House)...	Mr. D. Mac Gilp	5	1 0	214 ⅄	36·13	183
	,, (Rhuvaal).....	Bd. of Northern Lights	...	...	...	43·47	112
	Jura (Bay of Small Isles)	H. Evans, Esq.	...	...	...	50·70	...
	,, (Lowlandmansbay)	Bd. of Northern Lights	...	...	...	39·95	150
	,, (Fladda)	,, ,,	...	...	...	50·35	132
	Lismore (Mousedale).....	,, ,,	...	3 4	37 ?	34·21	164
	Mull (Earraid)	,, ,,	...	...	...	29·46	...
D	,, (Quinish)	J. N. Forsyth, Esq. ...	5	0 9	35	50·89	219
	Tyree (Hynish)	Bd. of Northern Lights	...	...	...	41·47	151
D	Coll (Acha School)..... ...	Mr. R. Macgregor	5	1 0	100 T	48·73	180
D	,, (The Manse)	Rev. N. MacDougall...	5	1 6	100 T	42·10	169

DIVISION XVI.—EAST MIDLAND COUNTIES.

	CLACKMANNAN.						
D	Tillicoultry.....	J. Wilson, Esq.	5	0 6	65 T	28·08	144
	,, (Tillicoultry House)..	Col. A. Mitchell.....	5	0 1	...	29·65	...
	,, (,, ,,)..	,, ,, ,, ...	5	1 1	...	30·39	...
D	Dollar	Mr. A. Blackwood	9	1 0	178	26·40	154

DIVISION XVI.—EAST MIDLAND COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
KINROSS.						
Loch Leven Sluice	Mr. W. Clark	7	0 7	360 L	27·00	...
D Kinross (Turfhills)	G. Henderson, Esq. ...	5	0 6	400 ⅄	33·19	157
FIFE.						
D Dunfermline (Keavil)	L. Dalgleish, Esq.	5	0 2	150	19·87	137
D ,, (Outh)	,, ,,	5	0 2	890	29·52	118
Isle of May	Bd. of Northern Lights	...	..	...	15·75	...
Pittenweem (The Priory)	Rev. F. K. Lloyd	5	0 10	50	19·31	...
Kilconquhar (Balcarres)	Mr. E. Tate	5	1 0	300 T	27·85	162
D Strathmiglo (Loden Urquhart)	J. Thom, Esq.	5	1 0	615 T	25·91	139
St. Andrews	A. Buchan, Esq.	...	...	...	23·61	...
D ,, (Pilmour Cottage)	Mr. R. Younger	...	...	...	22·05	148
Kilmany (Mountquhanie House)	D. Gillespie, Esq.	3	1 3	240	20·10	...
PERTH.						
D Culross (West Grange)	J. J. Dalgleish, Esq.	5	0 2	116 ⅄	27·07	144
Aberfoyle	J. M. Gale, Esq., C.E.	8	0 6	60	29·85	...
Dunblane (Kippendavie)	P. Stirling, Esq	3	...	362 T	26·90	...
,, (Kippenross)	,, ,, ,,	3	0 4	150 ⅄	22·20	...
Loch Dhu	J. M. Gale, Esq., C.E.	8	0 6	325	57·00	...
Ledard	,, ,, ,,	...	...	1500	36·70	...
Loch Drunkie	,, ,, ,,	8	0 6	420	46·15	...
,, Vennachar	,, ,, ,,	8	0 6	275	43·30	...
D Lanrick Castle	Mr. J. Begg	3	1 0	...	34·40	128
Bridge of Turk	J. M. Gale, Esq., C.E.	8	0 6	275	47·85	...
Loch Katrine (Tunnel Hill Top)	,, ,, ,,	8	0 6	830	41·20	...
Between Glen Finlas & Ben Ledi	,, ,, ,,	8	0 6	1800	35·10	...
Callander (Leny)	J. B. Hamilton, Esq.	3	0 4	340 T	44·10	...
Glen Gyle	J. M. Gale, Esq., C.E.	...	...	380	67·00	...
D Auchterarder (Colquhalzie)	Mr. R. Morton	8	0 5	150	29·02	101
D Balquhidder (Stronvar)	J. Dickson, Esq.	6	1 0	422 T	56·57	198
Crieff (Ochtertyre)	A. Buchan, Esq.	3	0 9	333	30·17	161
Perth (Rosebank)	,, ,, ,,	...	...	140	25·21	164
,, (Huntingtower Field)	Mr. A. Bayne	6	0 9	40	20·50	...
D Coupar Angus Station	Mr. J. Robertson	5	1 3	183 T	22·04	151
Dunkeld (Inver Braan)	Rev. J. M. B. Murdoch	...	1 0	500 ?	24·54	...
,, Station (H.R.S.)	The Station Agent	5	1 0	212 T	25·46	...
Meigle (Arthurstone House)	P. Carmichael, Esq.	5	2 3	187 ⅄	22·24	...
,, (,, Garden)	,, ,, ,,	5	2 3	196 ⅄	21·93	...
D Dalnaspidal (H.R.S.)	The Station Agent	5	3 0	1414 T	47·51	235
FORFAR.						
D Broughty Ferry (Douglas Ho.)	Mr. K. Graham	5	5 6	60 ⅄	21·63	132
D Dundee (Eastern Necropolis)	W. B. McKelvie, Esq.	3	0 4	199 T	20·15	111
D ,, (,, ,,) *new*	,, ,, ,,	3	0 4	199 T	20·36	153
,, (Camperdown Jute Works)	The Storekeeper	5	3 8	290	19·62	...
D† Craigton	J. Watson, Esq., C.E.	8	1 0	481	31·50	143

DIVISION XVI.—EAST MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	FORFAR—(*con.*)						
	†Craigton ..... M	J. Watson, Esq., C.E..	11	0 3	481	28·80	...
	†Crombie Reservoir ..... M	,, ,, ,,	11	0 3	522 T	28·16	...
	†Hill Head ..... M	,, ,, ,,	11	0 3	570 T	28·14	...
D	Arbroath.....	A. Brown, Esq., LL.D.	8	2 0	60 T	21·25	110
D	,, ...	J.D.Watson, Esq.,C.E.	5	1 0	58	17 76	138
	,, ... M	,, ,, ,, ...	5	1 0	58	18·38	...
	.. ..	A. Buchan, Esq.	...	...	105	20·26	128
	Kirriemuir (Lednethaie)	Mr. W. Morrison	5	1 0	720	30·23	125
D	,, (Lintrathen)	J. Watson, Esq., C.E.	8	1 0	700	23·25	133
	,, (,,) ..... M	,, ,, ,,	8	1 0	700	24·95	...
	,, (,, Creich Hill)	,, ,, ,,	8	1 0	1500	22·85	...
	Montroseness	Bd. of Northern Lights	...	...	...	15·51	...
	Montrose (Sunnyside Asylum)...	A. Buchan, Esq.	5	0 5	200	19·07	...

DIVISION XVII.—NORTH EASTERN COUNTIES.

	KINCARDINE.						
	The Burn [Brechin]	Col. McInroy	4	0 6	250	22·40	...
	Fettercairn (Arnhall)	J. H. Hay, Esq.....	...	...	...	20·90	...
	.. ..	A. C. Cameron, Esq. ...	5	0 4	237 ⅄	22·88	154
	Girdleness	Bd. of Northern Lights	...	4 7	86	17·67	...
	ABERDEEN.						
D	†Braemar	J. Aitken, Esq.	8	0 9	1114 T	25·10	193
	Aboyne Castle.....	Mr. G. H. Smythe.....	5	0 9	453 T	25·92	163
D	Cromar (Logie Coldstone Manse).	Rev. Dr. Davidson.....	5	1 0	694 ⅄	22·38	170
	,, (,, ,, Loanhead).	Mr. A. Farquharson ..	5	1 0	743 ⅄	23·12	183
	,, (Tillypronie)	Mr. R. Littlejohn	5	1 0	1120 ⅄	25·46	187
	Aberdeen (Cranford)	D. McHardy, Esq. ...	5	1 0	120 T	27·16	199
†	,, (Rose Street)	Dr. A. Cruickshank ...	5	0 5	95 T	24·41	...
D	,, (Braemar Place)	Late Mr. J. McCormack	8	1 9	103	26·03	200
	,, (King's College)	The Meteor. Council ...	...	...	...	26·40	210
	,, (Gordon's Hospital) ...	A. Buchan, Esq.	8	1 6	66 T	27·37	208
D	Midmar (Blackstock)	Mr. J. Barron.....	5	0 8	570 T	23·94	137
D	,, (Dun Echt Observatory)	Rt. Hon. Earl Crawford	8	0 11	461 ⅄	26·14	163
	Inverury (Manar Farm)	Mr. J. Walker	8	15 0	270 ?	23·95	...
	,, Manse	Rev. J. Davidson, D.D.	9	0 0	220	32·54	...
	Ellon (Kermuck)	Mr. T. Mair	11	0 6	300 T	31·44	...
	Peterhead (Buchanness)	Bd. of Northern Lights	...	...	...	22·65	121
D	New Deer (Artamford Cottage)..	J. Joiner, Esq.....	5	1 0	551 ⅄	30·82	206
D	Old Deer.....	J. Walker, Esq.....	5	2 0	135 ⅄	27·87	227
	Kinnairdhead.....	Bd. of Northern Lights.	...	...	...	19·41	...
	BANFF.						
D	Keith (H.R.S.)	The Station Agent.....	5	1 0	364 T	26·71	185
	Banff (St. Leonard's).....	A. Ramsay, Esq.	5	1 0	115 T	22·37	185
D	Boyndie (Whitehills)	Rev. W. Anderson ...	5	1 0	65 ⅄	23·85	202
	Cullen House	Mr. G. Berry	5	0 9	100 T	27·57	...

DIVISION XVII.—NORTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
ELGIN OR MORAY.						
Grantown	Mr. W. Duncan	5	1 1	712 ⅄	24·76	183
Craigellachie(WesterElchiesSch)	Mr. J. Milne	8	1 0	560 T	25·46	148
D Forres (H.R.S.)	The Station Agent	5	1 0	25	22·36	170
Gordon Castle	Mr. Webster	8	1 6	104 ⅄	24·84	...
D Elgin (Highfield)	A. Cameron, Esq.	5	0 11	80 T	25·36	191
NAIRN.						
Dunearn Lodge [Dava]	A. Buchan, Esq	...	...	..	28·04	...
D Nairn (Acharéidh)	Miss Clarke	8	1 0	60 T	19·30	...
,, (School Ho.)	The Meteor. Council	8	1 9	84	20·06	...

DIVISION XVIII.—NORTH WESTERN COUNTIES.

WEST ROSS.‡						
D Strome Ferry (H.R.S.)	The Station Agent	5	1 0	40 T	54·79	237
Applecross Gardens	Mr. D. McCowan	5	0 6	70 ⅄	42·99	...
Strathconan [Beauly]	Mr. D. McIver	5	1 0	450	41·68	162
Glencarron	A. Buchan, Esq.	...	...	504	80·27	265
Loch Torridon (Bendamph)	Rt. Hon. Earl Lovelace	5	...	36	71 09	...
Loch Vraon	J. D. Baldry, Esq., C.E.	8	0 7	750	61·68	...
Lochbroom (Loch Drome)	,, ,, ,,	8	0 7	850	61·11	...
Braemore House	,, ,, ,,	8	0 7	750	54·93	...
,, Lodge	,, ,, ,,	8	0 7	100	50·96	...
D Lochbroom	Mr. M. Macleay	5	0 6	48	45·22	228
Isle of Lewis (Stornoway)	Bd. of Northern Lights	...	3 4	31 ?	29·90	173
,, (Butt of Lewis)	,, ,, ,, ...	...	3 6	...	37·23	...
EAST ROSS.‡						
Achonachie Lodge [Beauly]	W. C. Preston, Esq.	5	1 0	125 B	28·17	226
D Dingwall H.R S.	The Station Agent	5	...	...	25·08	129
D Alness (Ardross Castle)	Mr. R. Massie	5	1 0	450 ⅄	26·97	191
D Fearn (Lower Pitkerrie)	R. Gordon, Esq., C.E.	5	1 0	95	17·99	126
Tarbetness	Bd. of Northern Lights	...	3 4	61 ?	21·95	...
WEST INVERNESS.						
Ben Nevis Observatory	A. Buchan, Esq.	5	...	4407	129·01	252
D Fort William (Public School)	C. Livingstone, Esq.	5	1 0	36 ⅄	70·78	228
Moidart (Roshven)	Prof. Blackburn	5	1 0	68 ⅄	60·04	252
D Loch Shiel (Glenaladale)	Major Macdonald	5	1 2	50 ?	93·15	242
Borrodale (Arisaig)	Mr. A. Grant	5	1 0	20	53·56	249
Glenquoich	A. Buchan, Esq.	8	2 0	660	96·04	...
Isle of Skye (Oronsay)	Bd. of Northern Lights	...	0 6	15 ?	47·27	158
,, ,, (Kyle Akin)	,, ,, ,,	...	0 2	3 ?	69·05	169
Rona	,, ,, ,,	...	...	...	29·88	135

‡ Including Cromarty.

DIVISION XVIII.—NORTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height above Ground. ft.	in.	Height above SeaLevel feet.	Depth of Rain. 1887 inches.	Days on which ·01 or more fell.
WEST INVERNESS—(*con.*)							
Barra (Barrahead)	Bd. of Northern Lights	...	3	0	640 ?	25·40	155
S. Uist (Ushenish)	,, ,, ,,	...	0	4	157 ?	78·40	171
D N. Uist (Loch Maddy)	Mr. G. McKay	5	1	0	...	45·50	...
Harris (Island Glass)	Bd. of Northern Lights	...	3	4	50 ?	43·52	168
EAST INVERNESS.							
Invergarry	Mrs. Ellice	5	1	0	...	54·43	...
D Fort Augustus (St. Benedicts)	Rev. W. M. Wall	5	1	6	68 ↟	37·54	225
D Aviemore (H.R.S.)	The Station Agent	5	1	0	710	24·34	223
D Loch Ness (Drumnadrochit)	Mr. A. Grant	5	1	0	104	29·33	222
D Inverness (High School)	T. Wallace, Esq.	8	1	0	95	19·51	...
D ,, (H.R.S.)	The Station Agent	5	1	8	...	20·12	150
† ,, (Culloden House)	D. Forbes, Esq.	6	4	0	104 ↾	19·07	...
D Cawdor [Nairn]	J. Joss, Esq.	5	1	0	260	26·62	195

DIVISION XIX.—NORTHERN COUNTIES.

SUTHERLAND.							
Invershin	Mr. G. Young	5	4	0	20 ↾	28·61	...
D Golspie (H.R.S.)	The Station Agent	5	0	9	27	26·34	134
D ,, (Dunrobin Castle)	Mr. D. Melville	5	1	0	14 ↟	24·28	144
,, (,, ,,) M	,, ,,	3	0	3	13 ↟	24·30	...
Lairg	A. Buchan, Esq.	3	3	4	458	27·22	217
Assynt (Achumore)	J. Elliot, Esq.	3	0	9	200 ↾	71·60	...
Stourhead	Bd. of Northern Lights	...	...		...	42·40	161
Scourie	J. Simpson, Esq.	5	0	4	28	43·93	...
D Forsinard (H.R.S.)	The Station Agent	5	1	0	...	30·10	214
Cape Wrath	Bd. of Northern Lights	3	3	6	355 ?	37·55	151
CAITHNESS.							
Wick	The Meteor. Council	8	1	9	77	24·10	...
D† ,, (H.R.S.)	The Station Agent	5	1	0	...	26·23	108
† ,, (Nosshead)	Bd. of Northern Lights	8	4	8	127 ?	19·57	168
D† Watten (H.R.S.)	The Station Agent	5	2	6	75 ↾	23·28	220
Thurso (Holburnhead)	Bd. of Northern Lights	3	0	8	60 ?	24·50	111
Dunnethead	,, ,, ,,	...	3	0	...	28·65	157
Pentland Skerries	,, ,, ,,	...	3	3	72 ?	21·85	194
ORKNEY.							
D South Ronaldshay (Roeberry)	J. Gray, Esq.	5	1	2	101 ↟	28·60	221
Hoy (Cantickhead)	Bd. of Northern Lights	...	0	6	...	41·18	165
,, (GraemsaySound, East=High)	,, ,, ,,	...	3	4	27 ?	32·73	187
,, (,, ,, West=Low)	,, ,, ,,	...	3	4	...	33·03	240
Pomona (Swanbister)	W Irvine Fortescue, Esq.	8	1	0	69 ↟	35·64	270
Shapinsay (Balfour Castle)	The late Col. Balfour	4	0	6	50	26·70	...

DIVISION XIX.—NORTHERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which .01 or more fell.
		Diameter	Height Above Ground	Height Above SeaLevel	1887	
			ft. in.	feet.	inches.	
ORKNEY—(*con.*)						
Sanda (Start Point)	Bd. of Northern Lights	11	0 6	29 ?	25·01	...
North Ronaldshay.....	,, ,, ,,	...	3 4	21 ?	26·04	102
SHETLAND.						
Sumburghead	Bd. of Northern Lights	...	...	...	21·59	154
,, (Dunroseness) ...	The Meteor. Council ...	8	1 0	84	32·10	...
Bressay Lighthouse	Bd. of Northern Lights	5	0 4	60	35·03	173

IRELAND.

DIVISION XX.—MUNSTER.

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height above Ground.	Height above Sea Level	Depth of Rain. 1887	Days on which 01 or more fell.
				ft. in.	feet.	inches.	
	CORK.						
D	Dunmanway (Coolkelure)	Col. Shuldham	5	2 0	500 T	48·44	181
	Roche's Point	The Meteor. Council	8	1 9	32	28·26	...
D	Carrigaline (Ravenswood)	M. H. Westrop, Esq.	5	1 0	130 L	27·73	145
D	Cork (Blackrock)	J. B. Binyon, Esq.	8	6 0	35 T	24·83	154
D	,, (Clarence Place)	W. Miller, Esq.	5	3 6	109 ⅄	22 25	148
D	Fermoy (Gas Works)	Mr. J. Grant	5	...	...	25·93	133
	Ballyhooly (Wood Cottage)	R. H. Wake, Esq., M.D.	5	1 3	195 ⅄	31·02	...
	KERRY.						
	Kenmare (Derreen)	Mr. W. Holbrow	5	1 0	74 T	47·29	135
	,, (Inishfea)	R. J. Mahony, Esq.	...	...	...	50·67	...
D	Dromore Castle	,, ,, ,,	5	0 6	50 L	42·40	168
	Valencia (Telegraph Station)	The Meteor. Council	8	1 0	12	43·00	...
	,, (Observatory)	,, ,, ,,	...	2 0	11	43·69	192
	Mangerton	Ven Archdeacon Wynne	8	0 8	1760 B	63·00	...
D	Killarney (Woodlawn)	,, ,, ,,	5	1 1	91 T	45·43	183
	,, (Gap of Dunloe) M	,, ,, ,,	8	3 0	78	75·75	...
	WATERFORD.						
	Cappoquin House	Sir R. F. Keane, Bart.	...	...	...	26·34	...
	Knockaderry	M. J. Fleming, Esq.	5	0 8	230 T	23·87	157
D	Waterford (Brook Lodge)	C. P. Bolton, Esq., C.E.	5	1 0	100 T	23·33	139
	,, (Ticor)	M. J. Fleming, Esq.	5	0 8	171 T	23·52	130
	,, (Newtown)	T. N. Harvey, Esq.	11	12 9	77	20·60	...
	,, (Gas Works)	Mr. G. Danskin	5	1 8	...	22·35	...
D	Portlaw (Mayfield)	J. Anderson, Esq.	5	4 0	70	26·66	159
D	Glenam [Clonmel]	Miss Grubb	8	1 4	80 T	27·34	156
	TIPPERARY.						
D	Tipperary (Henry Street)	J. Dowling, Esq., M.D.	5	1 0	400 ?	24·01	140
	Fethard (Mobarnane)	Dr. Donaldson	5	1 1	370	24·69	135
D	Derrycastle [Killaloe]	Mr. T. Manly	5	1 6	580 T	36·36	174
D	Nenagh (The Lodge)	Heber Koe, Esq.	5	1 0	100	21·01	159
D	,, (Clashnevin)	J. Mounsey, Esq.	5	1 2	300 ⅄	24·04	169
D	,, (Castle Lough)	A. Parker, Esq.	5	1 3	120 T	29·11	176
D	Ballingarry (Hazelfort)	Mrs. Fraser	5	1 0	...	22·63	149
	LIMERICK.						
D	Newcastle West	Mr. J. D. Musgrave	5	3 0	219 T	23·25	119
	Rathkeale	J. Horan, Esq.	5	1 0	144 ⅄	24·86	161
	Jane Ville [Tipperary]	R. Harding, Esq.	5	1 0	366	25·93	...
	Foynes	The Meteor. Council	...	...	...	29·07	179
D	Limerick (Kilcornan)	Mr. G. Smyth	5	1 0	...	22·28	121

DIVISION XX.—MUNSTER—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Ground in.	Height Above Sea Level feet.	Depth of Rain. 1887 inches.	Days on which ·01 or more fell.
	CLARE.							
	O'Briensbridge (Ross)	J. Digan, Esq.	10	2	0	93	26·06	166
D	Sixmilebridge (Kilkishen)	Rev. Canon Lloyd	5	4	4	113 ⅄	28·94	169
D	Broadford (Hurdlestown)	Capt. Bentley	5	1	0	164	27·52	190
D	Ennis	J. Hill, Esq., C.E.	10	3	2	21 L	29·39	147
	,, (Roslevan)	Mrs. Scott	5	1	9	...	28·07	142
D	Miltown Malbay	M. Molohan, Esq.	5	1	0	400 T	37·67	187

DIVISION XXI.—LEINSTER.

	WEXFORD.							
D	New Ross (Longraigue)	J. W. Deane, Esq.	5	1	0	210 T	24·95	155
	Wexford (Alma)	E. M. Ryan, Esq.	5	1	9	50 ⅄	23·60	119
D	Enniscorthy (Ballyhyland)	J. Moffat, Esq.	5	1	0	365 T	27·33	154
	Oulart (Wells)	C. M. Doyne, Esq.	5	0	6	...	25·83	133
D	Gorey (Courtown House)	Rt Hon Earl of Courtown	5	3	0	80 T	22·91	143
	KILKENNY.							
	Rosbercon Castle [New Ross]	A. E. Graves, Esq.	6	2	6	60	20·68	...
D	Inistioge (Woodstock)	Lady Louisa Tighe	5	4	6	400 T	25·15	152
	Graigue (Brandondale)	Mrs. Burtchaell	5	2	0	90 T	24·89	...
	Lavistown	D. A. Milward, Esq.	5	1	0	180 T	18·59	141
	Kilkenny Castle	The Meteor. Council	8	...		...	19·74	122
	WICKLOW.							
D†	Bray (Fassaroe)	R. M. Barrington, Esq.	10	5	0	250	29·38	156
	CARLOW.							
D	Bagnalstown (Fenagh House)	Mr. W. Davis	5	1	0	340	21·50	143
D	Carlow (Browne's Hill)	R. C. Browne, Jun., Esq.	5	1	0	291 ⅄	22·49	166
	QUEEN'S COUNTY.							
	Abbey Leix (Blandsfort)	J. L. Bland, Esq.	8	3	0	532 ⅄	24·59	167
	KING'S COUNTY.							
D	Parsonstown (Birr Castle)	Rt Hon Earl of Rosse FRS	8	0	11	180	23·06	155
	,, (,, ,,)	,, ,, ,,	8	0	7	180	23·47	169
	KILDARE.							
D	Straffan House	Mr. F. Bedford	5	2	0	240	19·19	126
	DUBLIN.							
D	Glenesmoel Lodge	F. P. Dixon, Esq., C.E.	5	1	6	800 T	35·01	203
D	,, (Rathmines W.W.)	,, ,, ,,	5	1	6	581 ⅄	27·18	164
D	,, (Friarstown House)	,, ,, ,,	5	1	6	607 T	24·25	163
D	Killiney (Cloneevin)	R. O'B. Furlong, Esq.	5	1	0	250 T	17·64	148
D	Dalkey (Bellevue Park)	H. M. Anketell Jones Esq	6	1	3	225	15·35	125

DIVISION XXI.—LEINSTER—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1887	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
DUBLIN—(*con*).						
D†Dublin (Fitz William Square) ...	J. W. Moore, Esq., M.D.	5	3 4	54 T	16·60	160
,, (Upper Leeson Street) ...	G. D. Powell, Esq., M.D.	5	0 6	49 ⅄	16·68	142
D ,, (Phœnix Park)	Col. Coddington, R.E..	8	1 0	162 ⅄	16·31	203
D Glasnevin (Botanic Gardens) ...	F. W. Moore, Esq. ...	8	0 11	62 ⅄	14·04	124
D Balbriggan (Laragh).....	Rev. S. P. Warren	5	1 0	57 T	20·43	164
MEATH.						
D Clonee (Williamstown)	W. Johnston, Esq...	5	1 0	200	17·81	160
Trim	P. Malone, Esq., C.E.	10	4 2	180 T	22·84	125
Navan (Balrath)	R. W. Walsh, Esq., C.E.	5	2 0	160	18·98	...
D Moynalty (Westland)	W. A. Barnes, Esq. ...	5	1 4	265	27·02	158
WESTMEATH.						
D Mullingar (Belvedere)	Mr. J. Bayliss	5	1 0	367 T	25·43	131
D Athlone (Twyford)	J. Hodson, Esq.....	5	5 0	188 ⅄	28·00	186
LOUTH.						
D Ardee (Lissrenney)	T F. Filgate, Esq.....	8	0 10	75 T	23·42	169
Louth (Stephenstown)	Col. Fortescue	5	0 11	75 ⅄	21·18	153
D Dundalk (Farndreg)	J. Barton, Esq.	5	1 0	90 T	21·28	129
D Ravensdale (Anaverna)	Miss Stephen	8	1 9	255 T	25·70	187
D ,, School	Mr. Locke	8	1 6	200	25·36	149
D Greenore.....	T. Chambers, Esq.....	5	1 0	4 L	22·91	130
LONGFORD.						
Edgeworthstown(Currygrane Ho)	J. M. Wilson, Esq.....	5	1 0	265 T	26·00	145

DIVISION XXII.—CONNAUGHT.

GALWAY.						
D Shannon Grove [Banagher]	F. A. Waller, Esq. ...	5	0 9	...	22·56	152
D Galway (Queen's College).....	Prof. Anderson	5	1 0	22	37·93	183
D Ballinasloe	W. H. Kempster, Esq.	5	0 6	150 ⅄	26·61	184
D ,, (Garbally)	Mr. J. Cobban	8	1 0	157 ⅄	31·84	188
Woodlawn	Mr. A. Porter.....	5	3 6	300 T	30·51	173
D Ahascragh (Clonbrock)	Rt. Hon. Lord Clonbrock	10	5 6	200 T	30·39	130
D Clifden (Kylemore)	Mr. T. McNab	5	1 0	105	58·33	192
Tuam (Gardenfield) ..... M	H. Kirwan, Esq.	5	1 0	155 T	39·07	...
,, (,,) ... *Snowdon*	,, ,, ,, ...	5	6 0	160 T	37·86	...
MAYO.						
Ballinrobe (Cranmore)	Miss Knox	5	...	...	42·73	...
,, (Kilrush)	J. Simson, Esq.	5	1 0	120 T	36·12	...
Westport (Oldhead House)	H. Wilbraham, Esq....	3	1 7	100 T	43·90	...
D Crossmolina (Enniscoe)	J. Pratt, Esq.....	5	0 11	74 T	47·68	222
Belmullet	The Meteor. Council ...	8	...	...	48·45	..

DIVISION XXII.—CONNAUGHT—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Ground in.	Height Above SeaLevel feet.	Depth of Rain. 1887 inches.	Days on which ·01 or more fell
SLIGO.							
D Collooney (Markree Observatory)	A. Marth, Esq.	5	1	0	130 ⊼	37·04	221
,, (,, ,,)	,, ,, ,, ...	5	16	6	148 ⊼	32·14	213
D Sligo (Mount Shannon).....	F. M. Olpherts, Esq....	5	4	5	70 B	36·29	185
Mullaghmore	The Meteor. Council ...	8	1	2	40	36·74	...
LEITRIM.							
D Ballinamore (Lawderdale)	J. O. Lawder, Esq. ...	5	1	0	275 T	33·16	187

DIVISION XXIII.—ULSTER.

CAVAN.							
D Belturbet (Red Hills)	Rev. E. B.W. Venables	5	0	9	208 ⊼	24·50	151
FERMANAGH.							
Enniskillen (Florence Court) ...	The Earl of Enniskillen	8	1	9	250 T	35·29	157
Brookboro' (Colebrook Park) ...	The Meteor. Council ...	...	1	0	279	31·46	132
MONAGHAN.							
D Rockcorry	Mr. W. R. Loudon ...	5	1	0	290 ⊼	22·09	202
ARMAGH.							
D Edward St. Station [Newry] ...	J. L. D. Meares, Esq...	5	1	0	22 ⊼	28·27	113
D Armagh Observatory.....	Dr. Dreyer	8	1	0	205 ⊼	23·62	164
D Lurgan (Belle Vue)	F. W. Bell, Esq.	5	0	6	200 T	21·94	166
DOWN.							
Warrenpoint (Summer Hill).....	Mr. B. M. Kernan.....	5	1	0	30 L	22·55	...
Newcastle (Fairleigh)	Rev. J. H. Seymour ...	5	1	2	12	31·01	163
D Rathfryland (Ballynagappoge)...	J.Smyth,jun. Esq.,C.E.	5	3	0	300	21·64	117
Castlewellan (Lough Island) ...	,, ,, ,, ...	10	3	0	442 T	26·50	...
Banbridge (Katesbridge)	A. Mulligan, Esq.	5	1	0	230	19·55	...
D Seaforde	Col. Forde	8	0	5	180 ⊼	24·66	165
Banbridge (Corbet Reservoir) ...	J.Smyth, jun.,Esq.C.E.	10	3	0	234 T	18·90	...
D† ,, (Milltown)	,, ,, ,,	8	0	8	200 T	23·08	175
D†Waringstown.....	Col. Waring, M.P. ...	8	0	8	191 ⊼	24·22	167
D Sydenham (Alma House).....	R. Reade, Esq.	5	1	0	60	25·02	165
D Holywood Waterworks.....	L.L.Macassey, Esq.,CE	5	1	4	310 ⊼	24·19	118
Donaghadee	The Meteor. Council ...	8	1	6	30	21·74	...
ANTRIM.							
D Aghalee [Lurgan].....	Lancelot Turtle, Esq...	5	1	0	105 ⊼	21·12	166
Stonyford (Belfast W. W.) ...	L.L.Macassey, Esq.,CE	5	0	7	470 ⊼	28·82	167
,, (,, ,,) ... M	,, ,, ,, ...	5	0	7	470 ⊼	28·78	...
D†Belfast (Queen's College).....	Mr. W. Taylor	11	7	4	68 ⊼	23·45	153
D ,, (New Barnsley)	J. Firth, Esq.....	5	1	0	200 T	31·81	198
D† ,, (Antrim Road).....	G. Thompson, Eq.....	7	7	0	144 T	24·83	175

DIVISION XXIII.—ULSTER—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above SeaLevel feet.	Depth of Rain. 1887 inches.	Days on wh ch 1 or more fell.
	ANTRIM—(*con.*)							
	Belfast (Divis Mountain) ...*side*	L. M. Ewart, Esq.....	8	1	0	1350 B	?23·50	...
	,, (,, ,,) ...*top*	,, ,, ,, ...	8	1	0	1567 T	?21·35	...
	†Antrim (The Manse)	Rev. Dr. Orr	5	1	0	150 T	21·67	134
	Carrickfergus (South Woodburn)	G. E. Reilly, Esq.....	5	1	0	640 T	28·77	234
D	,, (North Woodburn)	,, ,, ...	5	1	0	735 T	31·02	240
	,, (Copeland)	,, ,, ...	5	1	0	368 T	25·58	202
	,, (Lough Mourne)...	,, ,, ...	5	1	0	596 T	30·21	207
	Ballymena (Harryville)	A. Dawson, Esq.....	5	1	0	150 T	29·78	219
D	Broughshane (Quolie)	J. Lanyon, Esq.....	...	1	0	...	28·74	217
D	Cushendall (Cushendun)	Rev. St. A. Brenan ...	5	1	0	25 T	34·73	209
	Bushmills (Dundarave).....	SirF.E.Macnaghten,Bt	5	1	0	162 T	30·31	210
	LONDONDERRY.							
D	Garvagh (Moneydig).....	Miss Morrison.....	5	1	0	121	30·28	175
D	Londonderry (Knockan)	Rev. H. F. Stevenson..	5	1	0	300	34·64	204
	,, (Clooney Terrace)..	The Meteor. Council ...	5	1	0	75	35·44	211
D	,, (Creggan Res.).....	Mr. J. Hutchinson.....	8	1	0	320 T	38·12	228
D	Limavady	C.D. H. Campbell, Esq.	5	4	0	81 T	27·44	215
	,, (Drenagh).....	C. T. McCausland, Esq	5	1	0	80	29·79	209
D	Bellarena	Sir F. W. Heygate, Bt.	5	1	0	12 T	34·70	193
D	Coleraine.....	C.D. H. Campbell, Esq.	5	1	0	166 T	33·98	236
D	,, ...	J. Kennedy, Esq.	5	4	0	52 T	31·82	173
	TYRONE.							
	Moy (Derrygally)	W. McG. Bond, Esq....	10	6	0	60 ?	23·52	...
	,, (,,)	,, ,, ,, ...	5	6	0	50	28·35	138
D	Stewartstown (The Square)	A. Johnston, Esq.	5	1	4	300 T	24·77	154
D	Dungannon (Rockdale).....	Col. Lowry	5	1	0	300 T	25·04	161
D	Stewartstown (Ardtrea Rectory)	Ven. Archd. Meade.....	5	1	0	191 T	25·46	165
D	Omagh (Edenfel)	Col. Buchanan	8	1	0	280 T	30·86	190
	DONEGAL.							
D	Killybegs	A. Brooke, Esq.....	5	1	0	20	50 68	213
	Castlefinn (Finn Lodge)	Sir F. W. Heygate, Bt.	5	1	0	50	31·53	162
	Raphoe (Convoy Ho.)	Col. Montgomery	5	1	0	110 T	39·34	244
	Bloody Foreland (Ardnadrean)...	Rev. W. S. Griffith ...	5	1	1	24 T	43·86	...
D	Buncrana (Rockfort).....	T. Colquhoun, Esq. ...	5	1	0	40	37·18	211
D	Moville (Prospect Villa)	Mr. J. Lowry	8	2	0	78 L	31·55	193
	Malin Head	The Meteor. Council ...	8	...		...	31·53	...

G. J. S.

RULES FOR OBSERVERS.

As it scarcely seems wise to add yearly to the weight and bulk of this volume by re-printing the rules, it will perhaps be equally effectual to state here that a copy of *Arrangements for the Systematic Observation of Rainfall* will be sent gratis and post free to any address, on a line being addressed to G. J. SYMONS, F.R.S., 62, Camden Square, N.W.